January 14, 1974

RAILWAY AGE

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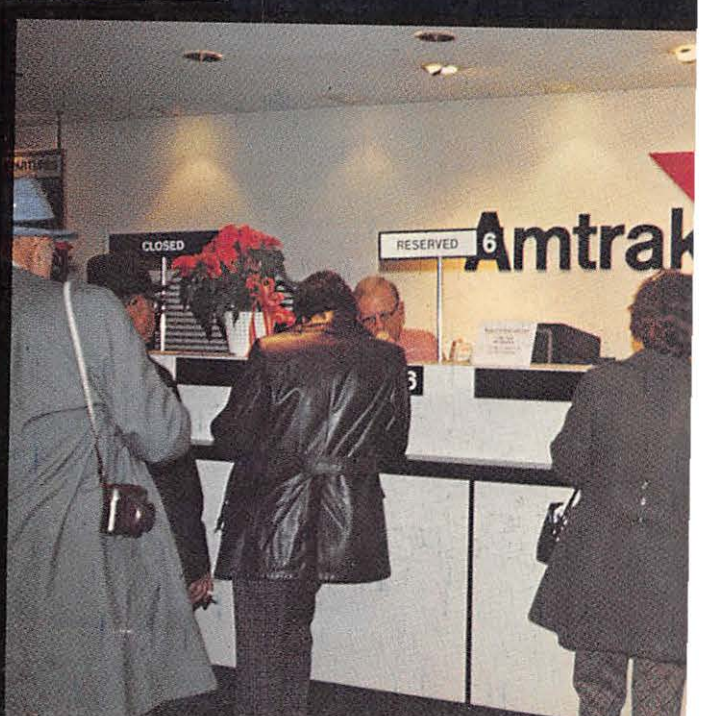

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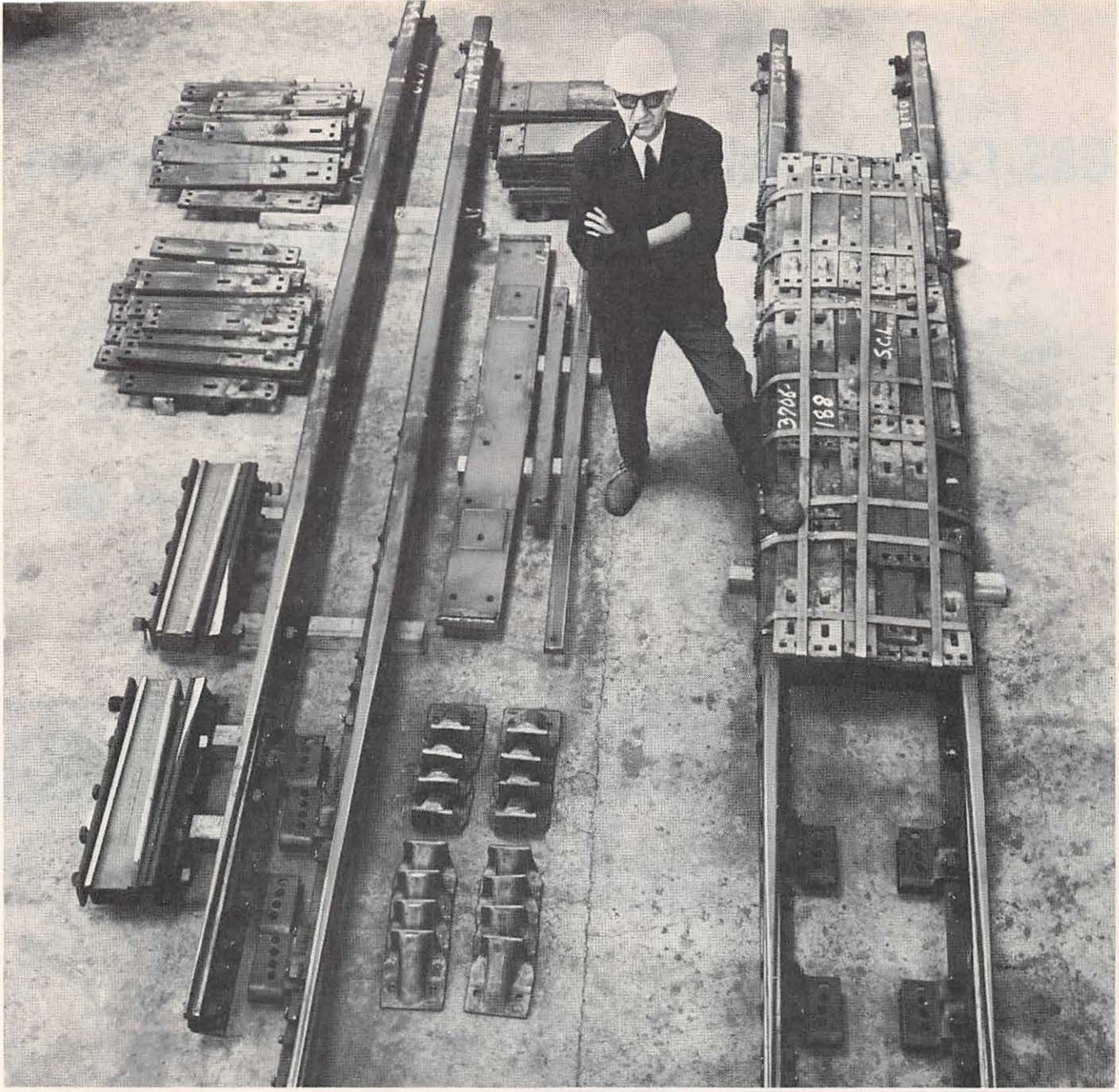

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GRS transit control systems are serving Boston, Chicago, Cleveland, New York, Staten Island, and Toronto. . . .and will soon serve Washington, D.C. GRS computer control automated the successful "Monocab" demonstrations at Washington's Dulles Airport.

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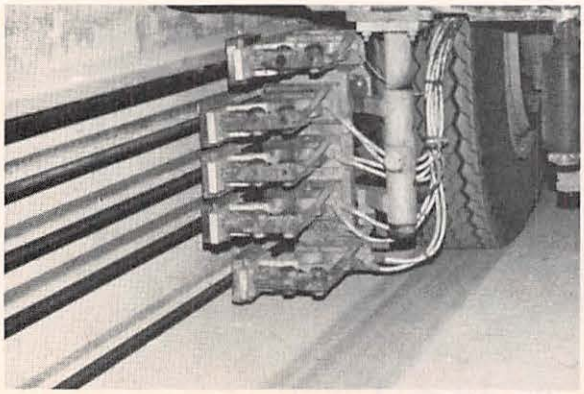
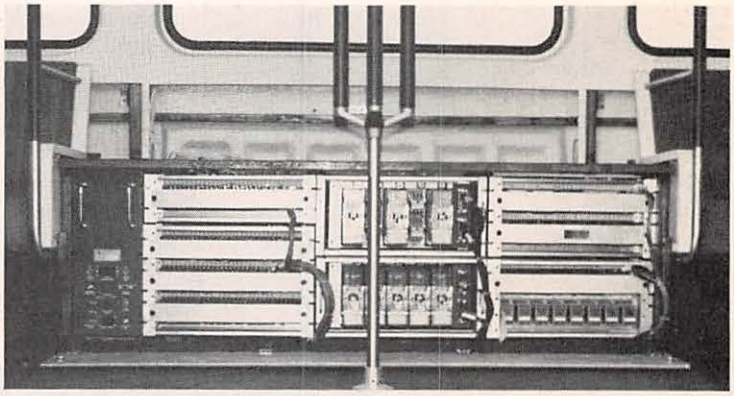
The automatic system operates 68 "Airtrans" vehicles over 13 miles of guideways.



The vehicles pick up power and control information from rails along the guideway.



The onboard automation equipment is in a case beneath a luggage storage shelf (shown here removed).

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Inside

LUTHER S. MILLER

A MARKET REBORN

There is considerable talk these days about a "rebirth" of the passenger train. Most people are inclined to date this happy event from the time President Nixon made his energy-crisis speech to the nation and, in so doing, sent the family automobile to the doghouse. All of this has certainly had its effect; the implications of what has been happening to Amtrak, Auto-Train and other people-movers-by-rail in recent weeks are explored in this issue's cover story (p. 16).

But the rebirth of the passenger train is not a sudden thing, nor even a recent one. It has been going on quietly for years. Hard evidence of this is presented in the statistical table on p. 25, which shows that passenger-train cars worth close to $175 million were delivered in 1973; that the backlog of new cars on order Jan. 1 was worth around $700 million; that some $400 million in orders will be placed in 1974; and that another $1.9 billion in orders that will be placed in the next five years is already firmly identifiable.

The passenger-train car, for so long the ugly duckling in the railway marketplace, is suddenly beginning to look like Cinderella at the ball.

THE NORTHEAST BILL: POX; PANACEA; OR WHAT?

James J. Kilpatrick, the conservative newspaper columnist, saw the Northeast bill that President Nixon finally signed into law Jan. 2 not only as the beginning of "a fast run toward total nationalization of America's railroads," but as mournful evidence that Congress seemed intent on sending the whole system of capitalism careening to the fate of Old 97.

On the other hand, Claude S. Brinegar, the conservative Secretary of Transportation, viewed the Northeast bill, as the only available instrument that could *save* half a dozen railroads from nationalization.

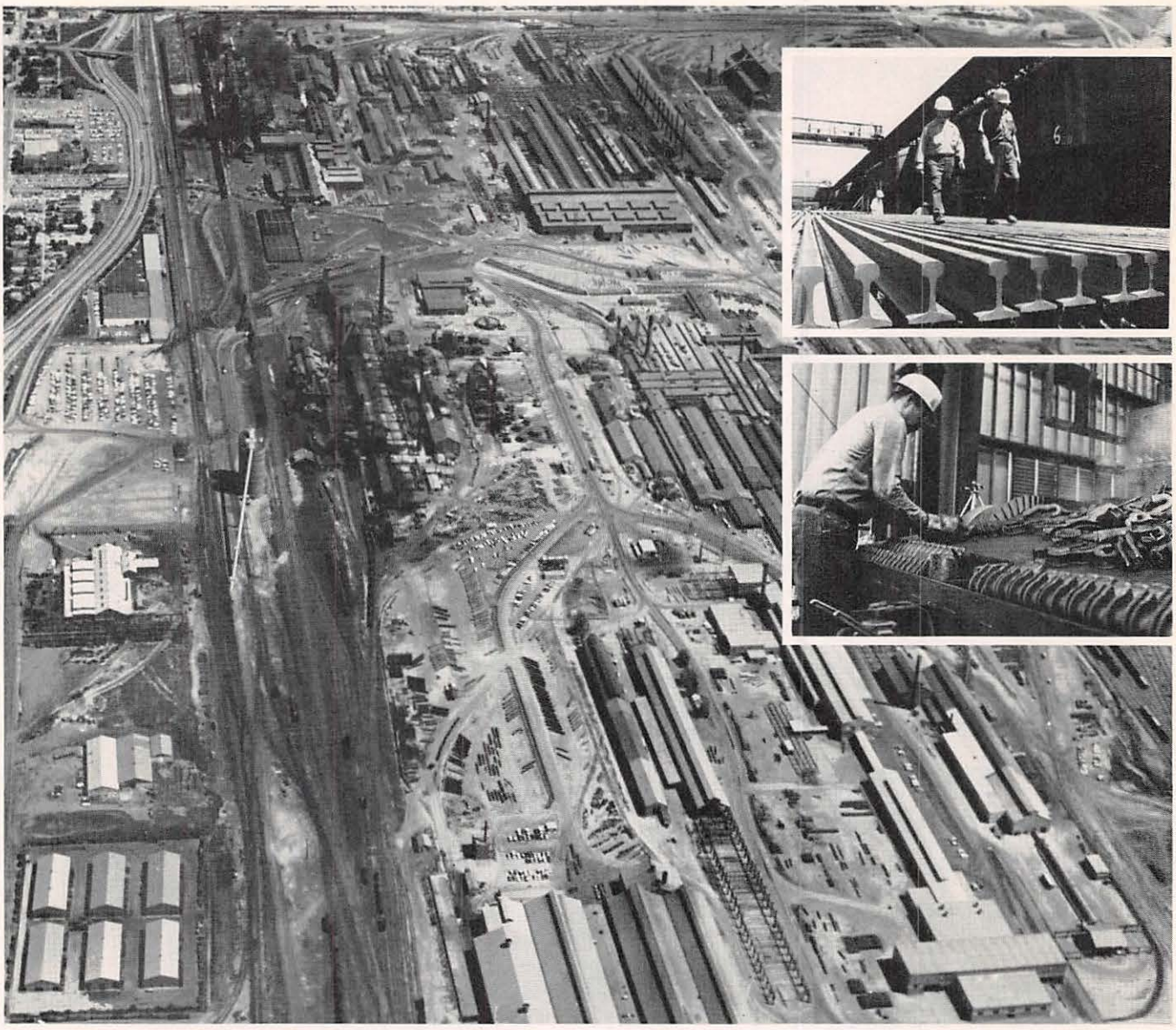
Dr. Barry Commoner, the environmentalist, seemed to agree with Mr. Brinegar that the Northeast bill would stave off government takeover, at least for a while—and this distressed Dr. Commoner, because personally, he says, he wants to see all railroads nationalized (p. 32).

With such conflicting statements from responsible and well-intentioned men, the interested bystander hardly knew what to think.

President Nixon himself probably summed it up best. He found the plan to have its "troublesome aspects," but it nonetheless seemed to him to strike "a reasonable balance between the burden on the taxpayer and the gains to the nation that will flow from a healthier private-sector rail freight system."

The mechanism that has now been set up to achieve this balance is described in our own analysis of the bill (p. 38).

Will there next be a "Midwest crisis" and then a "Far West crisis" that will require new bailout legislation? President Nixon hopes not—and he is doing more than hoping. Early this month the Administration was putting the final touches on new legislation designed to help the non-bankrupts. "We must press hard to rebuild and strengthen our entire nationwide rail freight system," says the President; to do that, he promises "fundamental changes in the regulatory environment," plus financial aid for modernization.



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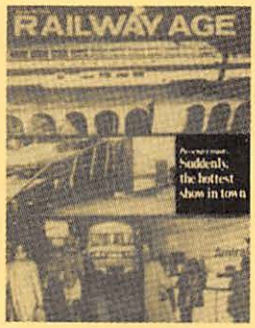
RAILWAY AGE

JANUARY 14, 1974

FEATURES



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Photos were supplied by Auto-Train Corp.; by WABCO (whose Cobra brake shoes are used by Auto-Train); and by RA Publisher Robert G. Lewis.

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Short and Significant

CAR ORDERS AT 95,000 FOR 11 MONTHS

Orders for new freight cars reached almost 95,000 in the first 11 months of 1973 after 9,736 additional units went on order books during November. Not since the end of 1956 had commercial carbuilders had such a backlog of unfilled orders; their total on Dec. 1, 1973, was 58,606 cars. The railroad shop backlog at the same time was 2,193.

LANGDON SUCCEEDS MOORE AS PC CHIEF

Jervis H. Langdon, Jr., has emerged as the new president and chief executive officer of the Penn Central Transportation Co., successor to William H. Moore, who announced Jan. 4 that he had "relinquished" the post coincident with the signing by President Nixon of the "Regional Rail Reorganization Act of 1973." Succeeding Langdon as a PC trustee is Robert W. Blanchette, who has served as counsel to the trustees since PC went into reorganization in June 1970. The trustees said Moore would continue to be available on a consulting basis; this apparently meant that Moore would continue to receive the $165,000-a-year salary written into a five-year contract, described at the time as "ironclad," when he left the Southern System to go to PC Sept. 1, 1970. The trustees warmly praised Moore's accomplishments, noting that during his presidency the carrier's ordinary income loss had been reduced from $326 million in 1970 to an estimated $185 million in 1973. They described Moore's achievements as "spectacular," noting: "Almost overnight he brought order out of near chaos so that PC again was able to provide speedy and efficient service to the public." In another announcement, unrelated to Moore's stepping aside, PC confirmed that J. Bruce Addington would retire as PC's vice president-operations effective Feb. 1 due to "severe circulatory and heart conditions."

C&NW, UP ADD A RUNTHROUGH

Chicago & North Western and Union Pacific have set up a new daily runthrough operation (tabbed the "Viking") with a schedule between the Twin Cities and major West Coast points which will provide users with up to 40 hours' faster service.

JOHN HANSEN HEADS SYSTEMS SUPPLIERS

Railway Systems Suppliers, Inc., has elected John W. Hansen, manager of marketing services for WABCO's Union Switch & Signal Division, as its chairman and president for 1974. He succeeds Robert G. Lewis, president of the Simmons-Boardman Publishing Corp. and publisher of Railway Age, Railway System Controls, Railway Locomotives & Cars, and Railway Track & Structures. Other new officers: executive vice president, Robert B. Wyland, president, Safetran Systems Corp.; first vice president, Frank Richter, publisher of Progressive Railroading; second vice president, Edward H. Cole, assistant vice president, Western Union. Frank Aikman Jr. was reelected secretary and treasurer and executive director.

SANTA FE DROPS AIR FREIGHT SUBSIDIARY

After three years of trying to make Santa Fe Air Freight into a profitable operation, Santa Fe Industries has decided to call it quits. Air Freight operations were to be discontinued by year-end. Since 1970, the subsidiary had enjoyed "significant increases" in volume—but the red ink on the bottom line never turned to black, and now the energy crisis is having an effect "which will curtail growth opportunities for the company in the foreseeable future. With many night cargo flights cancelled and with the reduction in the number of passenger flights handling cargo, Santa Fe sees little probability of increasing its air forwarding volume to the level necessary to produce a profit."

GRIFFIN BOOSTING WHEEL CAPACITY

The railcar wheel supply, at least somewhat short of late, should show improvement by late summer, when Griffin Wheel will complete a $1-million expansion program at its Bessemer, Ala., steel wheel plant. The project will include a building addition, expanded wheel finishing facilities, a new crane (for movement of scrap to the plant's electric furnaces) and an enlarged shipping area. New equipment will also be installed to permit rim-treating of 100% of Bessemer's wheel production (up from about 50% currently). According to Griffin President C.P. Voll, the program will boost production by about 30,000 wheels per year.

BN SCHEDULES MORTGAGE-BOND SALE

Burlington Northern came out in December with its offering circular covering a January public sale of $60 million in 25-year mortgage bonds (an issue to be underwritten through a nationwide group of underwriters managed by Morgan Stanley & Co., Incorporated). In the circular, BN reported consolidated revenues for the January-November period of more than $1.2 billion, up almost 12% from 1972 levels. Consolidated net for the same period climbed from $45.9 million to $48.6 million—an increase attributed to a "very high level of business activity" on the railroad and to high demand and strong prices for timber and lumber products.

BEAUTIFUL WAY TO RUN A RAILROAD!

When your right-of-way and yards look like this, the reason could well be ORTHO Paraquat CL, a non-residual, contact herbicide that kills weeds with fantastic speed. It stays active in low temperatures and works at low concentrations.

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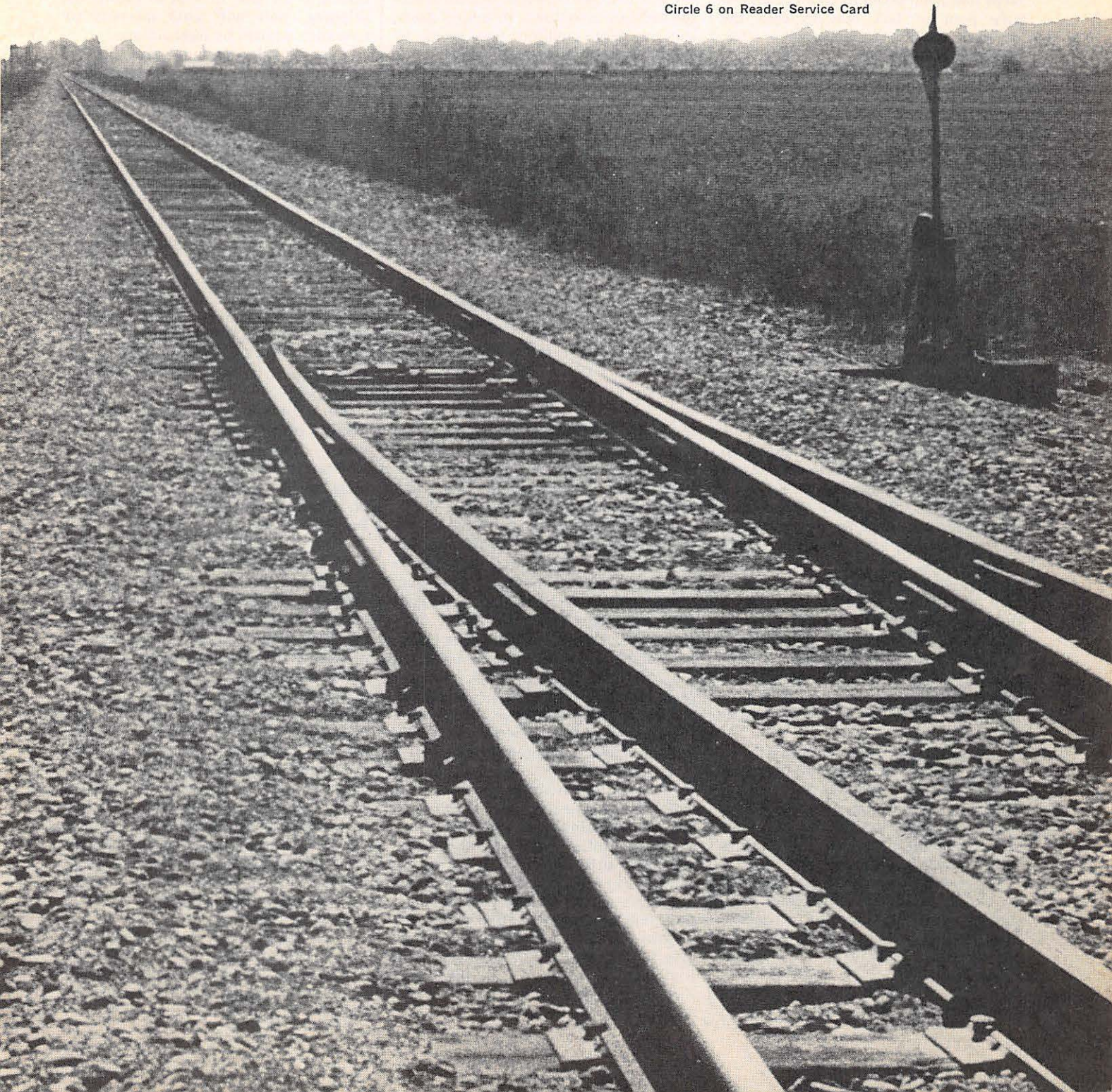


1974's big problems: Inflation and fuel supply

At the beginning of 1973 the major problems confronting railroads were the Northeast crisis and car supply. As 1974 opened, the Northeast problems were finally on the way toward a government-mandated solution (see p. 38). Steps had been taken to create a nationwide pool of box cars to ease the perennial supply quandary (RA, Dec. 31, 1973, p. 13).

For 1974, AAR President Stephen Ailes identifies the two major problems facing railroads as continuing cost inflation and uncertainties over fuel supply. Despite industry concern over fuel, the railroads "anticipate another good traffic year," according to Ailes. "From a performance standpoint, 1973 has to be ranked as one of the greatest years in railroad history. New records were established in virtually every respect except earnings."

Coal traffic, which accounts for a fourth of all rail tonnage, is expected to increase as electric utilities and other industries switch from oil and gas to coal. Some traffic, particularly of a long-haul nature, is expected to be diverted to rail because of the fuel efficiency of this mode.

Such traffic increases, according to Ailes, are expected to offset decreases involving other industries affected by fuel shortages. "But," said Ailes, "obviously our over-all performance will be governed by the amount of fuel made available to us."

AAR reports that 1973, even with coal shipments down slightly from 1972, found railroads handling an all-time record 845 billion ton-miles, nearly 9% above the previous record 777 billion ton-miles of the preceding year. Operating revenues were estimated to exceed $14.6 billion, up $1.2 billion from 1972.

"In spite of all-time records in revenues, traffic and efficiency of operations," warned Ailes, "there is still a deficiency in earnings and cash flow which continue to fall far short of capital expenditures and even further behind actual investment needs."

Net earnings for 1973 are expected to be up but little from the $500 million of 1972 and the industry's return on net investment will remain in the range of 3%. For the 12 months ended Sept. 30, 1973, Ailes reported that cash flow fell short of capital expenditures by $315 million. Capital spending for the full year 1973 is now estimated to have been $1.35 billion, an increase of 11% over 1972. Expenditures for new equipment—cars and locomotives—totalled about $910 million and roadway improvements accounted for another $440 million. In addition to the railroad investment in rolling stock, another $500 million was spent by leasing companies and private car lines, including those which are railroad subsidiaries.

While buoyant economic conditions kept the Canadian transportation industry working at peak capacity during 1973, it is now estimated that traffic growth will be slower in 1974. Canadian Pacific, for instance, found that its 1973 revenues lagged behind forecasts as a result of the strikes which disrupted Canada's rail operations from late July until early September. Restrictions on freight rate increases limited CP Rail's ability to offset escalating costs.

> Traffic forecasts right now look good. What doesn't look so good, warns the AAR, is the fuel picture.

The road now expects its most important growth areas to be potash, automotive products, non-ferrous metals, lumber, liquefied petroleum gases, chemicals, building materials, food products, forwarder traffic, and piggyback. Trailer and container traffic grew about 7% in 1973 and is expected to grow even faster in 1974. Overseas trade including bulk materials and grain, made a substantially higher contribution to CP Rail's gross revenues in 1973; bulk materials accounted for most.

In the U.S., 1973 grain shipments were about 26% over the previous year. While the biggest increase in traffic in the record-setting year was grain, there were substantial gains in other commodities, such as metallic ores (up about 12%), metals and metal products (up 12%), motor vehicles (up 11%) and grain mill products (up 10%). Piggyback is now estimated to have been up 18% over 1972, with 2.7 million trailers and containers being moved during 1973. New piggyback records "are assured," according to AAR's Ailes.

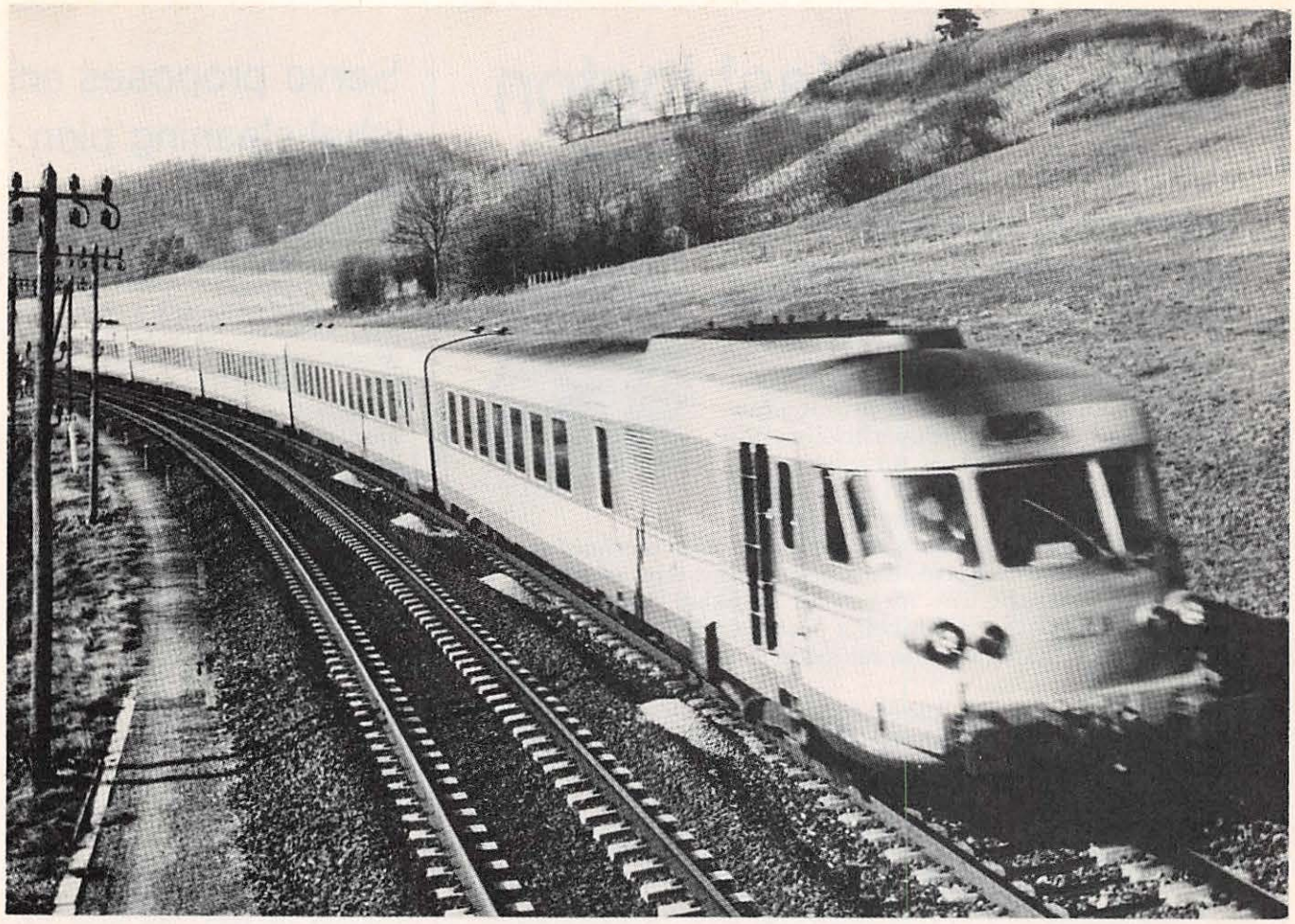
The piggyback boom reflects the first full year of land-bridge operations with twice-weekly unit trains moving between California and New York and between Pacific ports and those on the Gulf Coast. Minibridge business continued to increase in spite of efforts by shipping, port and labor interests to stop such services by legal actions.

Car utilization was up nearly 10% in 1972 as a result of peak demand and improvements in operating practices. Daily freight-car output—net ton-miles per serviceable car day—was up equivalent to adding 140,000 new freight cars to the fleet. In addition to increased capacity and higher daily mileage by the average car, AAR's computerized nationwide TeleRail Automated Information Network (TRAIN) aided in raising car output. Development of a new and expanded freight-car information system, costing about $2.5 million annually, was approved by AAR's Board of Directors during 1973. TRAIN II—the new system—is scheduled for pilot operation in mid-1974 and for full operation early in 1975.

Car supply is being augmented in a number of other ways. A study which is under way at the University of Nebraska—with industry support—is designed to find a more equitable way of allocating the national freight car fleet in periods of peak demand.

The AAR board of directors has given its go-ahead for creation of a pool of general-purpose, free-running box cars that would initially involve 10,000 50-foot, wide-door cars. These pool cars, to be financed with the guarantees of a number of large railroads with good credit ratings, are to be loaded to any designation by the participating lines. They would be moved to points where needed, rather than toward any home road as is now the case with individually-owned cars. The fleet will be operated in much the manner of the existing pool of Trailer Train piggyback cars and TTX will be responsible for the new box car operation. The car pool is expected to be implemented promptly, although delivery of equipment will be delayed by the large backlog that now exists in carbuilder shops.

The backlog of undelivered new equipment reached 60,799 on Dec. 1, 1973, with 58,606 of these cars in commercial shops. This was the highest builders' backlog since late in 1956.



This is the gas turbine train Amtrak has chosen.

On February 28, 1973 Amtrak contracted with ANF-FRANGECO Paris for delivery of two of the latest Turbo-powered trainsets: the "RTG". They are destined for the Chicago-Milwaukee and Chicago-St. Louis runs.

ANF-FRANGECO built the ETG and RTG gas turbine trainsets for SNCF-French National Railways. ETG trains have already totalled over 5 million miles on the regular Paris-Caen and Paris-Cherbourg service during the past two years.

By courtesy of the SNCF two trains of the current completely air-conditioned five-car RTG production series will be released to Amtrak during Summer 1973.

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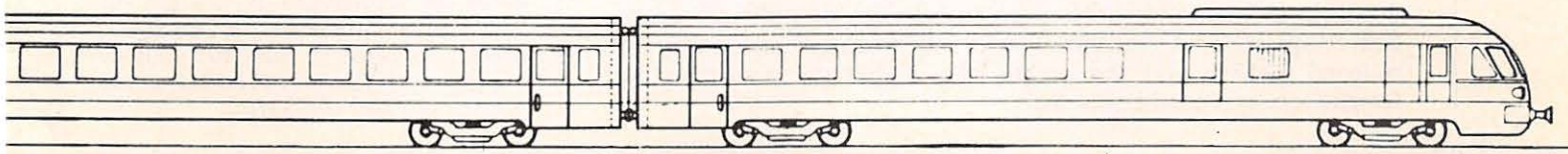

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Watching Washington

R.M.M. McCONNELL

SHORT-TERM DILEMMA

It's no secret now that the railroads are caught in a maddening squeeze play caused by the energy crisis. On the one hand, demands for rail service—both freight and passenger—are up phenomenally, thanks to a fuel shortage affecting private cars, trucks, and airplanes. Superficially, this looks great. New demands for service bring new revenues, and new revenues provide the money to improve service, and improved service attracts more business and more revenue, and so on until all the iron horses have become fast-moving, comfortable, safe, and efficient movers of mankind and mankind's products. This is the vision being promoted by a large segment of the public that loves the railroads, but doesn't understand them.

Reality lies on the other hand, where the railroads are suffering from the fuel shortage as much as everybody else is. With fuel access limited largely to percentages of past needs, the railroads are in effect expected to pick up the freight and passengers abandoned by other transportation modes and move them around with less fuel than they used to meet less demand.

As a result, a railroad renaissance that can provide a real long-term solution to transportation problems caused by the energy shortage will have to be a rebirth preceded by a long gestation period. Assuming we can all struggle through the pregnancy, will what we wind up with have been worth waiting for?

Yes, if some of the energy alternatives are developed.

LONG-TERM OPPORTUNITY

A study on "The Energy Outlook for the 1980's" prepared for the Congressional Joint Economic Committee indicates that American sophistication in energy use has yet to develop. The nation, faced with conflicting abundances, switched from coal to petroleum for energy production on a large scale after World War II, and quickly learned to ignore the huge reserves of coal left in the ground. Also ignored in the flood of cheap petroleum was the research needed to widen and cheapen the uses of coal. More recently, the abundance of inexpensive petroleum has led to the neglect of available, but harder to reach and consequently more expensive, petroleum sources.

The JEC study suggests eleven ways out of the present energy crisis. They range from the near-simplistic (stop wasting energy) to the near-fantastic (capture of geothermal energy from the earth's core). They also range from the immediately practical to the almost visionary. But they are all elements of a long-range solution to the energy crisis, a solution that will see more conservative use of available energy; more rational pairing of energy sources with energy consumers; and more innovative efforts at uncovering new energy supplies.

If this can all be coupled to a more cooperative and realistic spirit between the railroads and their users—and the passage of the Amtrak and Northeast Rail legislation indicates that spirit does exist—then the short-range enthusiasm of railroad romantics could well be translated into a permanent rationality for railroad realists; and the dream of a viable rail passenger and freight service could come true.

Servo proposes aci label-cleaning plan

A growing problem with aci operation—the problem of dirty labels—may be on the way to solution, with the AAR naming a high level committee to get the industry going with a cleaning program and with Servo Corp., KarTrak system manufacturer, proposing a two-phase program.

Phase I one of the Servo plan envisions a one-time crash program for manually cleaning labels with a target of getting label-readability to the 90% level. This goal, it is estimated, could be reached with use of a number of crews working at some 15 gateway locations over about a five-month period. Phase II would bring into use an automatic label-cleaning system, developed by Servo, which might be installed at gateway classification yards which have been identified as those offering the best possibilities for use of the system. In Phase II, it is figured that about 90% of the carfleet would be covered during the first year, with 100% coverage coming shortly thereafter.

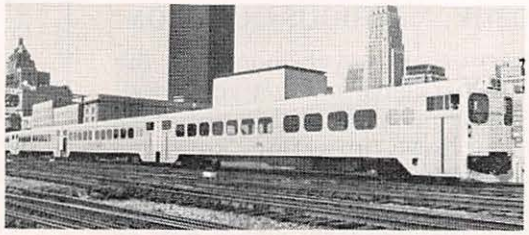
The automatic label-cleaning system would consist of washing equipment stationed on both sides of a hump approach track, with dual scanners located before and after the cleaner. According to Servo, the setup would meet these specs: Positive cleaning to make dirty labels readable; learning accomplished while cars are in motion; no delay to trains; no railroad personnel required for operation; no safety hazards; full ecological approval; and compliance with all railroad, government and union requirements.

In Phase I, the manual cleaning program, Servo proposes to do the job on a cost-plus-fixed-fee contract, with prorating to individual railroads on a car-ownership basis. In Phase II, the automatic program, Servo would install, operate and maintain the systems for a flat rate charge per car per year, with costs again to be pro-rated to individual roads on an ownership basis.

From an economic standpoint, the manufacturer notes that label-cleaning operations now involve a number of cost elements, including riptrack, crew time, materials cost, switch-engine time and per diem costs. The Phase II system, however, would involve only the flat rate charge, with no railroad costs for capital investment, personnel or materials.

Under the time schedule which Servo is working toward, the manual program would be undertaken in summer of 1974, with installation of automatic systems to begin in mid-1975 and be completed by the end of the year at the selected gateway class yards.

We helped break up the love affair between the commuter and his car.



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Lines on Labor

GUS WELTY

LABOR AND THE NORTHEAST

It is perhaps not much of an overstatement to say that, now that Northeast rail legislation is a matter of fact, real problems may be just beginning. Hopefully, intelligent men, on all fronts concerned, will be able to handle the difficulties. But, make no mistake, difficulties there will be. Take, for instance, that title buried deep in the legislation under the heading "Employee Protection." This is a part of the law which was worked out, essentially, between management and rail labor. Management, in this case, was, also essentially, representative of carriers not in reorganization and not operating in the Northeast—and, while there's certainly nothing intrinsically wrong with this kind of "working out," there are those who see problems stemming from (1) the language of the employee-protection provisions, and (2) the very fact that they exist as a matter of law.

ON SPECIFICS, PLUS POINTS—AND MINUS POINTS

One positive aspect of the legislation is that it will provide the surviving system with a good measure of flexibility in assigning and consolidating work and so forth. But, employees will get an excellent measure of protection, with the possibility that it could go as high as $2,500 per month, and this kind of arithmetic has come under predictable criticism. Then, there is a provision for mandatory offer of employment to employees of railroads in reorganization, with the stipulation that "such offers. . .to employees represented by labor organization will be confined to their same craft or class." Already, the lawyers (and others) are asking questions: Can you promote a conductor to assistant trainmaster? Can you even promote a fireman to engineer? Maybe it will all work out in the end, but, as one observer asks, "Are we going to have people fined or thrown in the slammer for the heinous crime of offering somebody a better job?"

ON THE OVER-ALL PHILOSOPHY, A SERIOUS QUESTION

Perhaps a more profound question, however, concerns the whole matter of legislating in this particular area. It could well be that Congress would never have gone along with a Northeast bill that lacked a provision for employee protection. But some observers wonder why, if an agreement had in fact been negotiated, the legislation could not merely have referred to it rather than incorporating it. Take this question, which may or may not be hypothetical: Suppose management and labor, working with the new situation in the field, find something they both want changed. As matters stand, they may have to go to Congress to act, even when there's general agreement among petitioning parties as to what ought to be done. As one expert sums it up, "Both management and labor ought to be free to move from a base, free to negotiate. But, as matters stand now, both sides seem to be in the kind of straitjacket they shouldn't be in. It's entirely possible both sides will live to rue the day that a labor contract was written into law—because it may open up new sets of problems unlike any they've ever faced."

Hopefully, that view will turn out to be an overly pessimistic one—because if there's anything management and labor don't need, it's more problems. On the other hand. . .

NW, ICG increase capital budgets

While some companies are taking second (and worried) looks at their 1974 capital-investment programs, in view of a possible downturn in the economy resulting from the energy crisis, railroads are moving in the other direction.

Even before the deepening energy crisis focused new attention on the railroads' ability to haul more freight with less fuel than their competitors, the railroad industry as a whole was planning to increase its capital programs by about 10% in 1974. Now, some railroad programs are being revised upward, in anticipation of increased demands on equipment and facilities. Two carriers which have added substantially to their 1974 programs are Norfolk & Western and Illinois Central Gulf.

NW has budgeted $101 million for capital improvements in '74, an increase of 58% over the estimated $64 million actually spent in '73. President John P. Fishwick said NW "expects more business as a result of the energy crisis and the outlays for both road and equipment are designed to improve its services."

NW will buy 20 new diesel-electric locomotives, acquire 1,748 new freight cars of various types, and rebuild 1,500 box cars. The new freight-car total includes 480 covered hoppers and 500 gondolas to be built in the company's Roanoke shops. During 1973, NW acquired 11 new locomotives and 1,525 freight cars.

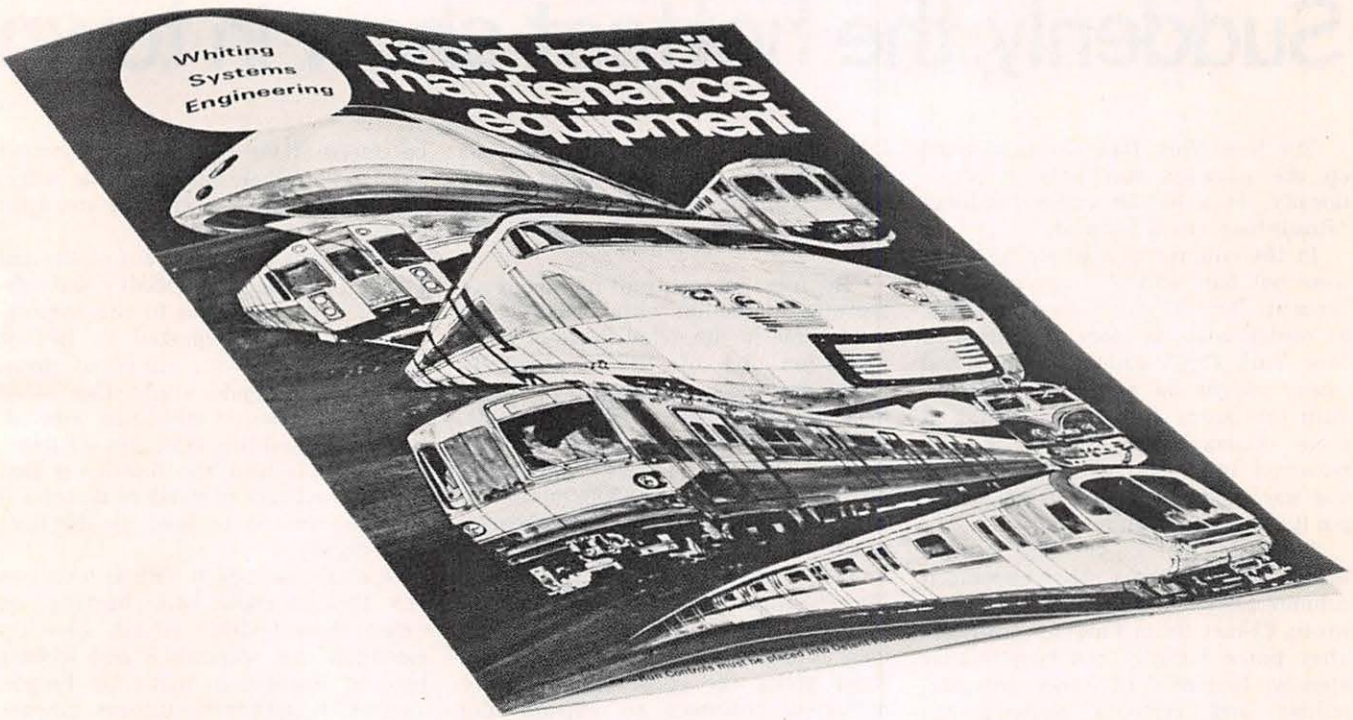
To improve maintenance of equipment, NW will build a system air brake shop at Lamberts Point, Va., a locomotive truck repair facility at Decatur, Ill., a car repair facility at Roanoke, and a system wheel shop at Portsmouth, Ohio. Construction on all of these is to begin early this year.

Fishwick noted that in the last five years, nearly 1,200 miles of welded rail have been installed over NW's 14-state system. Upgrading of the roadbed will continue this year with replacement of more than 200 miles of worn rail. Nearly 1 million crossties will be inserted and more than 2,200 miles of track will be cleaned and ballasted.

Illinois Central Gulf plans to invest $102 million in railroad capital improvements in '74. About $63 million will go for 3,119 new, remanufactured and rebuilt freight cars; 65 remanufactured diesel-electrics; and 500 piggyback trailers. (Of this total, $32 million was authorized late in 1973 so that orders could be placed for steel and other materials in short supply.)

The remainder of ICG's railroad budget will go for improvements to tracks, bridges and structures.

Trouble Shooter's Guide



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PASSENGER TRAINS:

Suddenly, the hottest show in town

The New York Daily News summed up the situation succinctly, if sensationally, in a late-December headline: "Roads bare, trains jammed."

In the country as a whole, all roads were not bare and all trains were not jammed. But the Daily News, regaling its readers with the story of another of New York City's gasless Sundays, had clearly caught the spirit of the times. With the family automobile retiring in some disarray into the wings, the passenger train had taken center stage and was suddenly, as one travel writer put it, "the hottest show in town."

For passenger-train partisans, it was a time of near-euphoria. They applauded columnist William F. Buckley when he wrote, "I met Santa Claus on Amtrak!" They pored hungrily and happily over literally hundreds of other columns, articles and cartoons showing the passenger train resurgent, and the automobile in semi-retirement.

● **Is it for real?** Professionals in the passenger-train business were more cautious. They wondered if the evidence at hand was sufficient to establish a real and lasting renaissance in railroad travel—or whether the telephones that were "jangling off the walls," as one reservations clerk put it, in the offices of Amtrak and Auto-Train merely represented an over-reaction to an energy crisis that might not turn out to be as bad as it seemed. They also wondered about the ability of the carriers to handle any substantial surge of new business with their present fleets of equipment.

But there was general agreement that while the passenger-train was not likely to make an overnight recovery from long years of neglect, it was very definitely, over the long-haul, on the comeback trail. The principal evidence in support of this came from Congress, which late in 1973 took a long, worried look ahead and voted more than $1 billion to help Amtrak get "back on the track" with trains that will be among the fastest and most modern in the world.

The most recent proof of Congress's growing infatuation with the passenger train came in the "Rail Services Reorganization Act of 1973." Originally designed to deal mainly with the problems of Northeastern freight railroads, the Act, as finally signed by the President on Jan. 2, 1974, also contained a provision for pouring $500 million to $700 million into high-speed passenger service in the Northeast Corridor.

Before that, Congress, in approving the "Amtrak Improvement Act of 1973," had raised Amtrak's guaranteed-loan authority to $500 million, effectively giving the corporation virtually unlimited resources to expand and modernize its fleet of cars and locomotives.

● **"Scouring the world for cars."** The shortage of equipment—reliable, modern equipment—right now is one of Amtrak's most pressing problems. With patronage soaring (in the November-December 1973 period, increases in traffic ranged from 30% on the Metroliners to 59% on the San Francisco Zephyr, compared with the year-earlier period), Amtrak was "scouring not just North America but the world," said a spokesman, for both new and used cars. To its present fleet of around 1,900 cars (only 1,500 of which are in operation at any given time, the remainder either being shopped for bad order or going through Amtrak's refurbishing program), Amtrak hopes by June 1 to add 100 cars from those still available in this country and Canada. Each will be modernized at a cost of $60,000 to $70,000.

Orders will be placed for 100 to 200 new cars this year (and will continue to be placed at the same rate in the next five to 10 years)—but where the orders will be placed, and when, were still open questions as 1974 began.

Two firms, Coverdale & Colpitts and Louis T. Klauder & Associates, have submitted new-car designs to the corporation; Amtrak is reported to be not entirely happy with either of them. They are still under study. Cars of an entirely new design, still to be selected, *will* be ordered this year, says Amtrak—but there is also the likelihood that off-the-shelf cars of standard design will also be ordered to beef up the fleet immediately.

Amtrak has talked with at least two U.S. builders about "piggybacking" on orders these builders already have for suburban cars. Amtrak is also looking hard at Europe, in particular France. Amtrak bought two five-car turbine-powered trains from France in 1973. They are performing well between Chicago and St. Louis, and it is likely that Amtrak will pick up its option for eight more French turbine trains. It is also possible that Amtrak will purchase new standard trains from France or elsewhere abroad. (Amtrak surveyed all of Europe for possible used cars, but decided not to go that route due to the incompatability of a number of components, including couplers.)

Amtrak already has placed an order, with the Budd Co., for 57 new Metroliner-type coaches, plus 110 new diesel-electrics from EMD (in addition to 40 already delivered) and 26 straight electrics from General Electric.

The importance of getting new, reliable equipment on line and getting it there quickly, was underscored during the recent holiday period when Amtrak's otherwise-good press was marred by reports of a number of equipment failures that stranded hundreds of

(Continued on page 20)

Auto-Train President Garfield—and a satisfied customer.

"We get them there with a tankful of gas"

In terms of passengers carried, Auto-Train is a small part of the total railroad passenger picture. But symbolically, Auto-Train is a very big part of the picture—because it not only moves people but their automobiles. Auto-Train opened for business in December, 1971, and was an instant success. Soon after the auto-ferry operation's second birthday, Railway Age talked with its youthful, energetic president, Eugene K. Garfield, about the actual—and potential—effects of the energy crisis.

RA: What has happened to Auto-Train since the energy crisis broke?
GARFIELD: Let me put it to you this way: We prepared a brochure for our annual stockholders meeting on Nov. 20, 1973, and one of the graphics showed that our average number of telephone inquiries had gone up from 200 to 2,000. We were very proud of that. Then the President gave his energy message; there were warnings about gasoline rationing; and our inquiries soared past 4,000.

RA: How many automobiles can you now move between Lorton, Va., and Sanford, Fla., in a day?
GARFIELD: We now have three trains a day. One has a capacity of 120 autos, the two others 128 each. Each train carries about 400 passengers. The basic fare is $198 for the automobile and two passengers; that also includes the coach seats, all the meals and entertainment. Above two, the extra fare per passenger is $25, up to the design capacity of the car. Our bedrooms cost an additional $45, $60, $75 and $85, depending upon the number of occupants.

RA: How does Auto-Train's fuel consumption compare with that of the automobiles if they were traveling over the highway?
GARFIELD: It takes 25 gallons of fuel to move an automobile to Florida by Auto-Train and about 90 gallons over the highway. We figure Auto-Train is saving about 11 million gallons of gasoline every year.

RA: What is the status of your plan to inaugurate service between Louisville, Ky., and Sanford?
GARFIELD: We applied to the ICC last Oct. 16 for an operating certificate and at this point we are waiting for a favorable decision. We have the equipment, we have the terminal just about ready to go, we have the financing. To start, it will be a steamship-type schedule, a train every other day much like our third train between Lorton and Sanford, and then we will go into daily service. I think the Louisville market is a greater market than Washington-Florida, just by virtue of the number of cars that go to and from Florida from the Midwest. Ohio produces more cars to Florida than any other state in the United States, including Georgia.

RA: What is your total equipment fleet now?
GARFIELD: About 160 cars, including auto carriers and passenger equipment.

RA: Aren't you running out of sources for equipment?
GARFIELD: Yes. If we continue to expand, we will have to build new cars. We have made some preliminary designs, for both passenger cars and automobile carriers. Actual delivery is several years off, but our designs are under way.

RA: Won't Amtrak, with its virtually unlimited resources, be a very formidable competitor for any future auto-ferry business? Can a private company really compete with them?
GARFIELD: At this point I think Amtrak is trying to compete with us. We pioneered the concept, we started at a time when nobody else wanted to do it. We are not opposed to competition. We think it's healthy. We're a private company, and free competition is the spirit of free enterprise. Our only feeling is that is should be free in the true sense of the word, that everybody have the same opportunity to compete equally without undue restriction on the other.

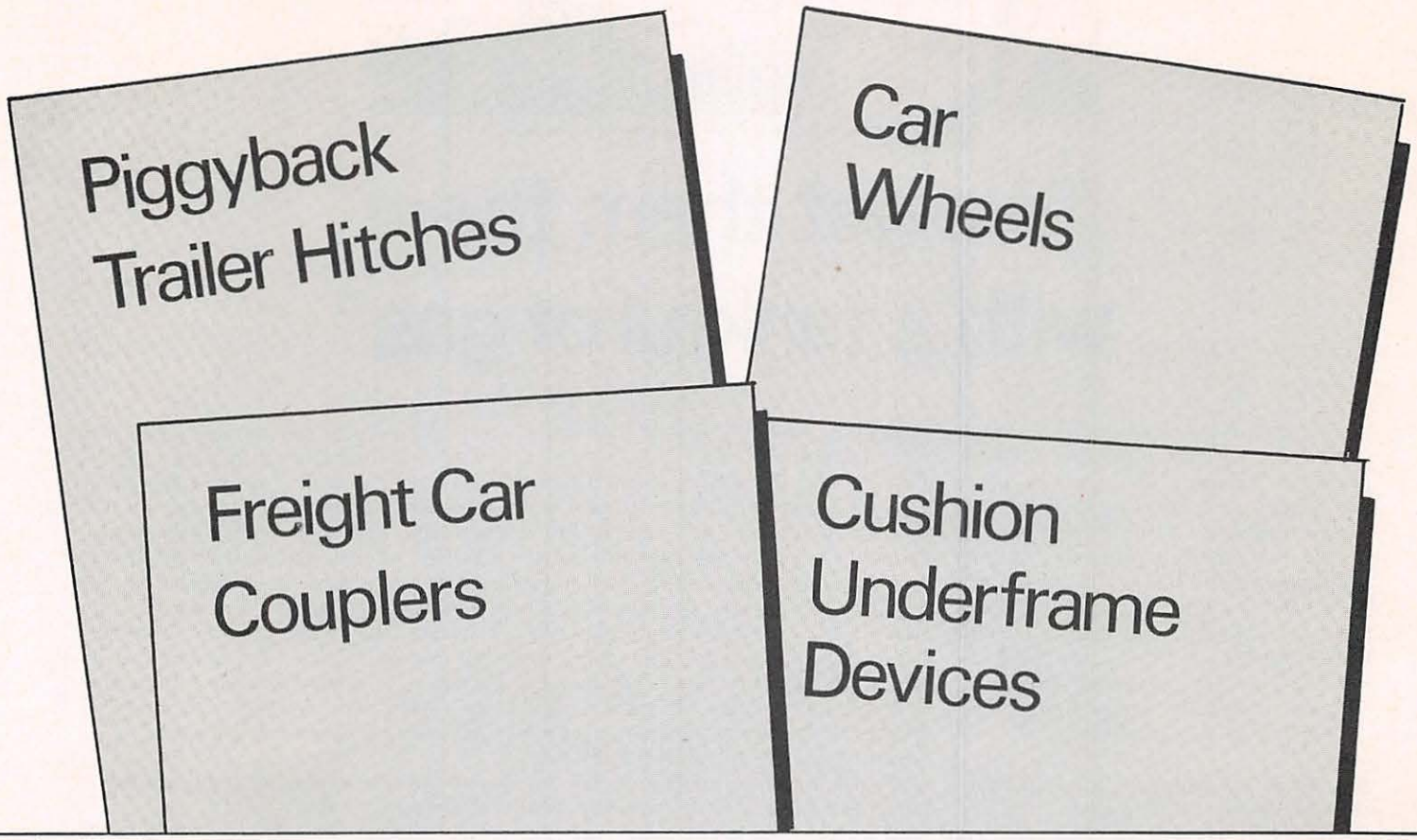
RA: What restraints does the Amtrak Improvement Act of 1973 impose on Auto-Train?
GARFIELD: I don't see any restraints on Auto-Train, or anyone else who wants to operate auto-ferry service, unless Amtrak were particularly opposed. I think it's good that the ICC has the authority to determine who should handle auto-ferry service. If Amtrak opposed our application for auto-ferry service in other parts of the country, they would have to show that we would reduce its income or its revenue or impair its ability to reduce its losses. The burden would be on Amtrak to show such impairment.

RA: Are you experiencing any problems of damage to autos?
GARFIELD: No. We use high-speed passenger trucks, so the autos get the same ride the passengers get. Our major problem is meeting the demand with the equipment that is available.

RA: How is your on-time performance?
GARFIELD: It's above 90% consistently. When our train is more than 90 minutes late, which does happen from time to time, I write a personal apology letter to every passenger, and I sign each of these letters myself.

RA: How are your relations with the railroads, the Seaboard Coast Line and the RF&P, over whose lines your trains travel?
GARFIELD: They give us excellent service. We have absolutely no complaints.

RA: What kind of future do you foresee over the long-range for auto-ferry service?
GARFIELD: There's a great future. We have to address ourselves to the fact that the American public will not give up the automobile. The auto is here to stay. But it's important to understand how best to utilize the auto—when it should be used and when it shouldn't be used. We could make the American public very happy if we were able to transport automobiles around the country to given areas, without wasting gasoline, get them where they want to go with a full tank of gasoline, the same full tank they had when they started. It's a phenomenal idea.



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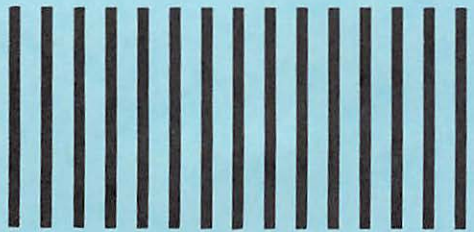

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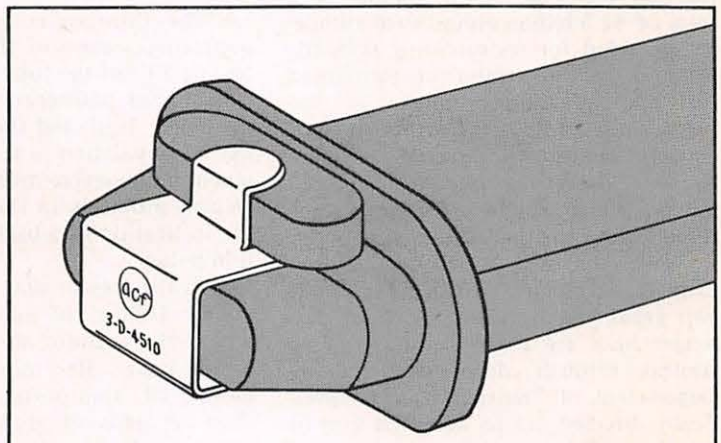

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Circle 11 on Reader Service Card

Why Congress wants to invest $700 million in Northeast Corridor passenger improvements

(Continued from page 16)
passengers in various places.

● **Northeast Corridor plans.** Of immense significance to the future of Amtrak, the rail-traveling public generally, and to railway suppliers—especially those in the track field—was the unexpected action of Congress in finally approving the Northeast Corridor project. The plan has been around for a long time; it has been on the DOT's approved list for two years. Now it is backed by a firm Congressional directive; it is no longer in the "iffy" category.

Specifically, the Northeast railroad bill which became law Jan. 2 directs that no less than $500 million—of a total of $1.5 billion obligational authority provided for restructuring railroads in the northeast region—be earmarked for passenger improvements in the Northeast Corridor. If this is not enough, Amtrak is directed to come back to Congress for an additional $200 million, which may be provided by joint resolution of the two Houses.

When the new Consolidated Rail Corporation comes into being in about two years, the Northeast Corridor passenger lines are to be turned over to Amtrak, through sale or lease. But the Department of Transportation is specifically directed not to wait that long to get Corridor improvements under way. Engineering studies are to begin immediately and modernization of the line and its equipment is to get priority.

"We have assurances from the Department of Transportation that they are going to move immediately to upgrade the Corridor," Senator Vance Hartke (D.-Ind.) asserted during Senate debate on the measure. And he specified what Congress wanted the money spent for: "Improvements will include the complete installation of welded rail, signal improvements, increased banking on curves, a complete fencing of the right-of-way, modernized electrification from Washington to Boston and new rolling stock."

Apparently anticipating that there might be some foot-dragging at the Department of Transportation, which is known to think that the cost of the Corridor plan is pretty high and which would rather proceed at a more leisurely pace, Senator Hartke emphasized:

"The Secretary of Transportation is directed to begin the necessary engineering studies and improvements immediately upon enactment. The conferees specifically directed that. . .these improvements should be completed within less than five years."

Senator Claiborne Pell (D.-R.I.), who is generally credited with having persuaded President John F. Kennedy years ago to proceed with the first Northeast Corridor plan, which resulted in the present Metroliner service, suggested during the floor debate that the Corridor improvements described by Senator Hartke would cut travel time between New York and Washington to 2½ hours.

Senator Hartke begged to differ: "It will be two hours from New York to Washington, and 2½ hours from New York to Boston by 1976."

In a long statement on the Senate floor, Hartke described the thinking behind the costly Northeast Corridor directive:

"The Corridor is the most densely populated section of the country, containing 20% of the total population. The demand for passenger transportation is extremely high, and the increasing density of population in this area will cause much more severe transportation congestion problems in the future without the institution of a balanced transportation policy.

"At the present time, all but approximately 10% of the intercity trips made within the corridor are by the highway or air mode. Recently, both of these means of transportation have been showing signs of growing congestion, causing a deterioration of travel speed, and reliability for intercity trips along the corridor spine. If appropriate action is not taken, this situation will worsen considerably; the Federal Highway Administration forecasts that intercity highway travel will increase by a minimum of 65% between 1970 and 1985. As conditions worsen, the severity of highway congestion will significantly affect auto travel. Present and projected air travel within the Corridor has even more serious problems than those affecting highway travel. For example, the total hours of passenger delay at LaGuardia and Washington National Airports increased from 630,000 hours in 1966 to 1,750,000 hours in 1970.

"With congestion already occurring in the highway and air modes within the Corridor, and with total travel expected to grow at 3% per year for the indefinite future, it becomes evident that steps must be taken to insure that satisfactory transportation is available for those seeking to make inner-city trips as well as local and extra Corridor trips in the future. The Northeast Corridor provisions of the Regional Rail Reorganization Act of 1973 will provide this transportation capacity in a very energy-conserving manner, without the use of additional land, and at little environmental cost."

● **Railroads shortchanged?** Amtrak has other problems besides finding new equipment. Bickering with the 13 railroads that operate Amtrak's 200-plus trains a day goes on and on, in and out of the public eye. The on-time record of Amtrak trains continues to be very poor; for most of 1973, it was no better than 60% on the average.

Amtrak blames the railroads; the railroads blame Amtrak for making unreasonable demands on already limited resources.

Recently Amtrak took Illinois Central Gulf into arbitration on slow orders—and won a decision which said, in effect, that ICG had to upgrade its passenger lines to May 1971 standards, at its own cost. The reasoning was that ICG (and other railroads) had agreed to maintain specified schedules in contracts negotiated prior to Amtrak's startup 30 months ago; if they were not able to meet these schedules, for reasons primarily of track being maintained to freight-train rather than to passenger-train standards, they were in violation of their agreements. (The arguments are not entirely one-sided. In the arbitration finding, it was suggested that Amtrak might be at fault for poor locomotive reliability.)

A railroad spokesman points out that the original contracts were negotiated by both sides in great haste to meet Congress's startup timetable. These contracts are now up for renegotiation—and a main thrust of the railroads is to win adequate compensation for whatever service and facilities they are required to furnish.

"We don't mind giving Amtrak anything it wants," says this spokesman, "as long as Amtrak is entirely willing to pay for it."

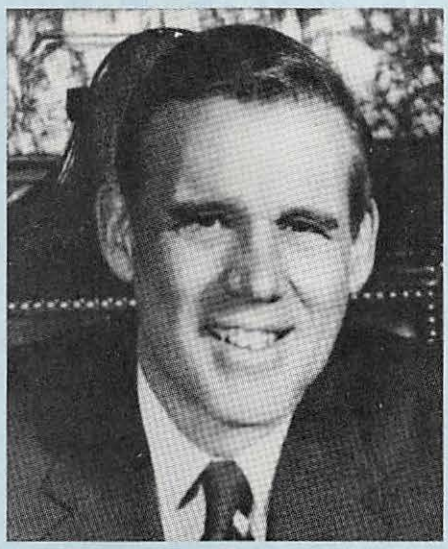
● **Intercity isn't the whole picture.** The passenger-train renaissance is not, of course, confined to intercity operations. Rail commuter and transit trains also stand to benefit from any trend away from private transport to public. Actually, this trend has been visible for some time, and it is reflected in the current state of the passenger car market which is heavily dependent on suburban and urban rail operations (p. 25).

But there are disquieting signs—disquieting, at least, to rail-transit advocates—that the Nixon Administration is swinging back toward concrete-and-rubber solutions to the public transport crisis, and away from rail (see following page).

"The public is thirsting for good trains"

The energy crisis has made Gov. Francis Sargent of Massachusetts look good. Other states are scrambling to see what kind of public transportation they can throw together; Sargent foresaw the dead-end that automobiles were leading the country toward, and long before the gasoline shortage hit Massachusetts had committed itself to more rail and less asphalt. In 1970 Sargent froze construction of an expressway about to pierce Boston's inner beltway.

At Sargent's side through the battle to change course has been his Secretary of Transportation, Alan Altshuler, a former professor of political science at M.I.T. The two were together when interviewed by Railway Age.



"One way or another, we've got to get vastly increased Federal money." —Mass. Gov. Francis Sargent

RAILWAY AGE: You have been a leader in the fight for more government support at the Federal, state, and local levels, of public transportation. Are you satisfied with progress thus far?

SARGENT: I am encouraged that finally the people of this country have realized we can't forget railroads and mass transit.

Perhaps more poignantly than in other parts of the country, we see the urgency of this problem in the Northeast, where we have a series of population centers relatively close together. We've got an incredible amount of catching up to do—yet, I'm convinced that the American public is thirsting today for fast, air-conditioned, convenient, on-time, high-speed trains. I think they're even more concerned about having tip-top commuter trains and tip-top mass transit.

RA: How do you feel about what has been done on the Federal level, and what still needs to be done?

SARGENT: Considering that a few years ago, nobody would even talk about dipping into the Highway Fund, I think there has been quite a shift of opinion. First came the shift of opinion by the Administration.

There was another interesting thing. The first year I was Governor I suggested, at one of the first meetings I went to of the National Governors' Conference, that we start looking at the question of using Highway Trust Funds for other than highway purposes. I was shouted down by almost all of the governors: this was sacred ground. I tried to point out that I didn't mean to suggest that any state be deprived of funds, only that each governor should have the power to make decisions as to how the transportation dollar was to be spent in his state. We didn't get anywhere; other than Dan Evans of Washington and one or two others I was the lone voice in the wilderness.

After subsequent meetings, the Governors' Conference finally adopted the position of supporting it. I had to make the point as dramatically as I could that what is applicable in Massachusetts isn't necessarily applicable at all in Montana. If the governor of Montana wants to spend almost all of his dollars on highway improvements, that's fine. But clearly in Massachusetts we shouldn't continue to pour all of the money into highways and let what little we have left in the way of mass transit and high-speed rail deteriorate further.

I think no people can better reflect the shift of opinion than governors. They're on the firing line every day. And the governors went from almost no one for it to a majority of them for it.

RA: How do you feel about operating subsidies? What form would you like to see operating assistance to mass transit take? For example, do you think the approach of Rep. Wright Patman of Texas, to use increased gasoline taxes for this purpose, is a sound one?

SARGENT: I feel we should gamble on subsidies. It's very unlikely that mass transit or any other type of mass transportation is going to be wholly self-supporting. I think we've got to have major assistance from Federal and state governments.

ALTSHULER: We've taken a position supporting the Wright proposal, saying that one way or another we've got to get vastly increased Federal money into transit. Governor Sargent has testified in Washington on behalf of operating subsidies.

We *are* taking a very strong negative position toward any idea of just reallocating existing monies. There was a report that the Administration may be thinking of simply taking existing transit money and some highway money and making that available to the states as operating subsidies. That's a very negative approach, because if you start taking transit capital grant money and using it for operating subsidies then you just defer all the capital projects.

SARGENT: I think the energy crisis makes paramount the importance of rethinking all of this. It seems to me that we can't any longer afford to do other than have massive Federal and state funds for all of these forms of mass transportation. There's no more dramatic way it could have struck home than having this shortage of gasoline.

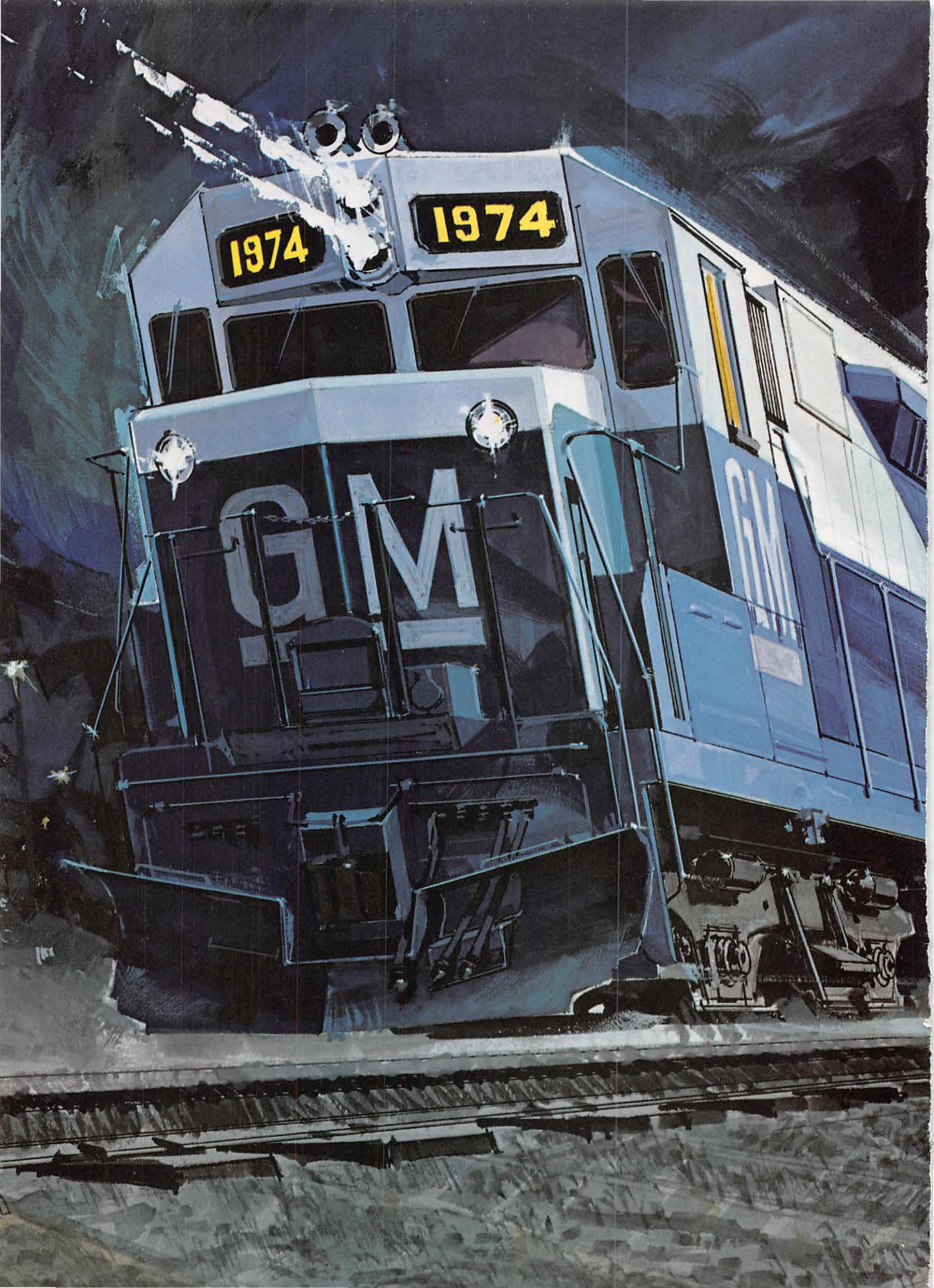
I'm disappointed that it's going to take a lot of time to catch up. Here we're faced with a situation where people will probably be able to use their cars less and less, and I wish we had some of the plans already in operation.

RA: Are you satisfied with the progress that's been made here, in Boston and Massachusetts generally, in coming to grips with the mass transit problem?

SARGENT: I think that I'd look like a damn fool now if I had approved plans to go ahead and build eight-lane interstate highways in Boston's inner belt.

We just got through our legislature a bill which sets up an arrangement whereby we pay half of the cost of the MBTA operating deficiency. It also sets up authorities in other major cities, giving them authority to spend money for mass transportation facilities as well.

We've authorized bond issues for Boston, to build a rapid transit system which will look like spokes of a wheel going to the center of the city. The system needs an awful lot of modernization, but at least it's something. We're not in a situation like Los Angeles, which hasn't got a damn thing.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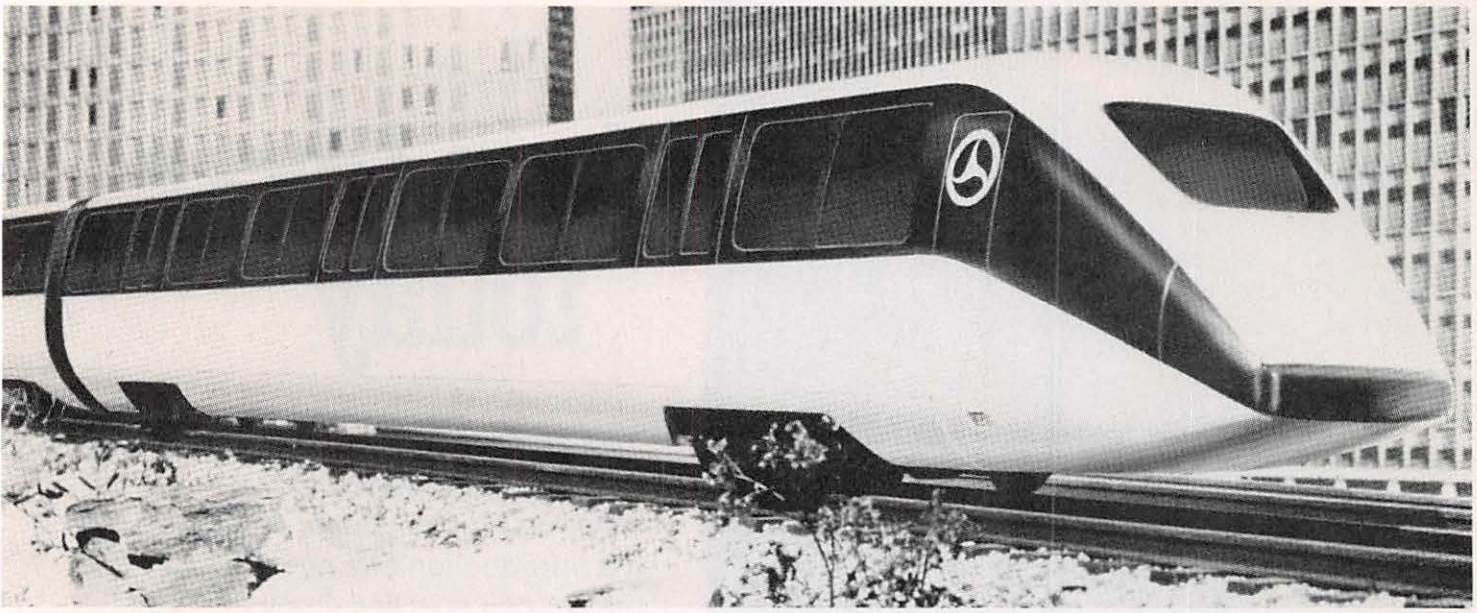

TOMORROW'S TRANSIT CAR? Garrett AiResearch now has an $8-million subcontract from Boeing Vertol to produce two ACT-1 (Advanced Concept Train) cars for rail rapid transit. But present thinking within the DOT suggests that the future use of such cars may be limited.

Rail transit: Good news—and bad

Cities that operate rail transit and commuter systems—and those cities (e.g., Los Angeles) that would like to operate them—greeted 1974 with mixed feelings.

On the one hand, the future never seemed brighter for urban rail transportation: the energy crisis was beginning to put the automobile in its place—which to transit men means the owner's garage. Nearly everybody, suddenly, was extolling the virtues of mass transit in general, rail transit in particular.

At the same time, danger signals were flying.

The Nixon Administration, in a seeming reversal of its stand against transit operating subsidies, was working on a new "single urban fund." At first glance, this seemed the answer to a transit operator's prayer. It would provide money for operating, as well as capital, subsidies.

● **"A game of mirrors."** At second glance, however, the Nixon plan seemed to many transit planners to be a "game of mirrors," as one of them put it, which not only would provide little if any new Federal aid—but which would probably severely reduce available capital funds. One effect, which the Administration did not deny, would be to discourage the planning or building of new fixed-rail systems.

Here's what is going on:

Right now, something less than $1 billion a year is available through the Urban Mass Transportation Administration for mass transit capital grants. Originally, under this program, UMTA was authorized to fund up to two-thirds of a transit project, with local communities putting up the remaining third, for anything from a multi-billion-dollar rail system to the purchase of a new bus. Under a recent amendment to the UMTA Act, the Federal share rose to 80% of the total.

In addition to this money, a total of $800 million a year in urban highway funds will soon become available to the cities for use not only for urban highways but, at local option, rail or bus capital projects.

Recently, transit men have been agitating for operating as well as capital assistance. A bill to provide $400 million a year in such aid passed both houses of Congress, but the Administration has opposed it and the margin of votes in the House was not sufficient to override a veto.

● **Transit money for highways?** Under increasing pressure to approve such aid, the Administration changed course and went for the "single urban fund" idea.

On close examination, what this would amount to would be simply adding UMTA's $1 billion to the $800 million in urban highway funds, and making the total available to the states for disbursement to the cities. DOT says that some additional money, perhaps $200 million, more or less, might be tossed in to bring the total up to $2 billion or more.

The cities could then use this money for whatever purpose they thought best—investment in transit capital projects; operating aid for existing bus and rail systems; or even the building of urban highways. (Actually, most transit men had doubted that very much of the available urban highway money would ever go into mass transit—since most cities still have unmet highway needs. There is now, under the "single urban fund" concept, the distinct possibility that what is now transit capital grant money could actually go into the building of highways.)

DOT advocates of the "single urban fund" argue that in the past, local decisions may have been distorted by the availability of only capital grants. This may have led local authorities, the argument goes, to think in terms of big, expensive systems (e.g. rail) and not in terms of efficient operation of existing systems. By giving urban areas a lump sum, and making them reach their own decisions on how it is to be used, efficient operation will be encouraged and costly new systems discouraged, DOT hopes.

DOT recognizes that some big urban areas have particularly pressing needs for large sums of money, and perhaps 20% to 30% of the total would be reserved for disbursement by the Secretary to such areas.

But DOT makes no secret of the fact that it believes that cities which go the costly rail route ought to be prepared to pay the lion's share of the bill.

For cities such as Atlanta and Baltimore which have already made costly decisions based on the probability of two-thirds or more Federal aid, the DOT hopes to do what it can. But the point is made that these cities were never guaranteed a fixed percentage of Federal aid; and they are not likely to get nearly as much as they had assumed they would if the new Nixon plan goes through. ■

Passenger car market at a glance

These new car orders are likely in 1974:

For service on . . .	No. of cars	Type	Purchaser	Builder
Amtrak	100-200	Intercity	Amtrak	
Chicago Transit Authority	100-200	Rapid Transit	CTA	
Erie Lackawanna	6	Push-Pull	Metropolitan Transportation Authority	
	200	M-U	N.J. DOT	
Illinois Central Gulf	16	Bi-Level	Chicago South Suburban Mass Transit District	
Massachusetts Bay Transportation Authority	80	Rapid Transit	MBTA	
Montreal Transit	300	Rapid Transit	Montreal Urban Community Transit Commission	
Penn Central (New Haven)	100	M-U	MTA/Conn. DOT	
PATCO	44-48	M-U	Delaware River Port Authority	
Total	**946-1150**			

These new cars were delivered in 1973:

Amtrak	10	Intercity (turbo)	Amtrak	ANF-Frangeco
Bay Area Rapid Transit	168	Rapid Transit	BART	Rohr
Burlington Northern	25	Bi-Level	West Suburban Mass Transit District	Budd
New York City Transit	34	Rapid Transit	MTA	GSI
Penn Central (Hudson and Harlem)	40	M-U	MTA	GE/Budd
Penn Central (New Haven)	104	M-U	MTA/Conn. DOT	GE/Budd
Staten Island Rapid Transit	52	Rapid Transit	MTA	GSI
Total	**433**			

Work goes forward on this undelivered backlog:

Amtrak	57	Intercity	Amtrak	Budd
BART	178	Rapid Transit	BART	Rohr
Long Island	4	Gas Turbine/ Electric	MTA	Garrett
	4	Gas Turbine/ Electric	MTA	GE
MBTA	150	Light Rail	MBTA	Boeing Vertol
Milwaukee	41	Bi-Level	Northwest Suburban Mass Transit District	Budd
NYCTA	745	Rapid-Transit	MTA	Pullman-Standard
Penn Central (New Haven)	40	M-U	MTA/Conn. DOT	GE
Penn Central	70	M-U	N.J. DOT	GE
	60	M-U	Southeastern Pennsylvania Transportation Authority	GE
San Francisco Muni	80	Light Rail	S.F. Muni	Boeing Vertol
Toronto Transit	26	Rapid Transit	TTC	Hawker-Siddeley
Washington Metropolitan Area Transit Authority	300	Rapid Transit	WMATA	Rohr
Total	**1,775**			

The 5-Year Outlook:

Amtrak	500-1,000	Intercity	Amtrak	
CTA	550-650	Rapid Transit	CTA	
Long Island	60	M-U	MTA	
Metropolitan Atlanta Rapid Transit Authority	300-350	Rapid Transit	MARTA	
Milwaukee	10	Bi-Level		
New York & Long Branch	157	M-U	N.J. DOT	
NYCTA	650	Rapid Transit (New Lines)	MTA	
	320	Rapid Transit (Replace R-10)	MTA	
	350	Rapid Transit (Replace R-12, 14, 15)	MTA	
Niagara Frontier Transportation Authority	100	Rapid Transit	NFTA	
PATH	90	Rapid Transit	PATH	
Penn Central (Hudson and Harlem)	100	Gas Turbine/ Electric	MTA	
Philadelphia Transportation Commission	140	Light Rail	SEPTA	
Reading	100	M-U		
Transport of N.J. (for Newark City Subway)	41	Trolley	N.J. DOT	
Toronto Transit	374	Rapid Transit	TTC	
WMATA	254	Rapid Transit	WMATA	
Total	**4,096-4,746**			

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We recommend you spend a little more so you can earn a lot more. For more information about the added value of our B-1 Quick Service Valve, call your WABCO representative. Or write: Westinghouse Air Brake Company, Transportation Systems Group, Westinghouse Air Brake Division, Wilmerding, Pa. 15148.

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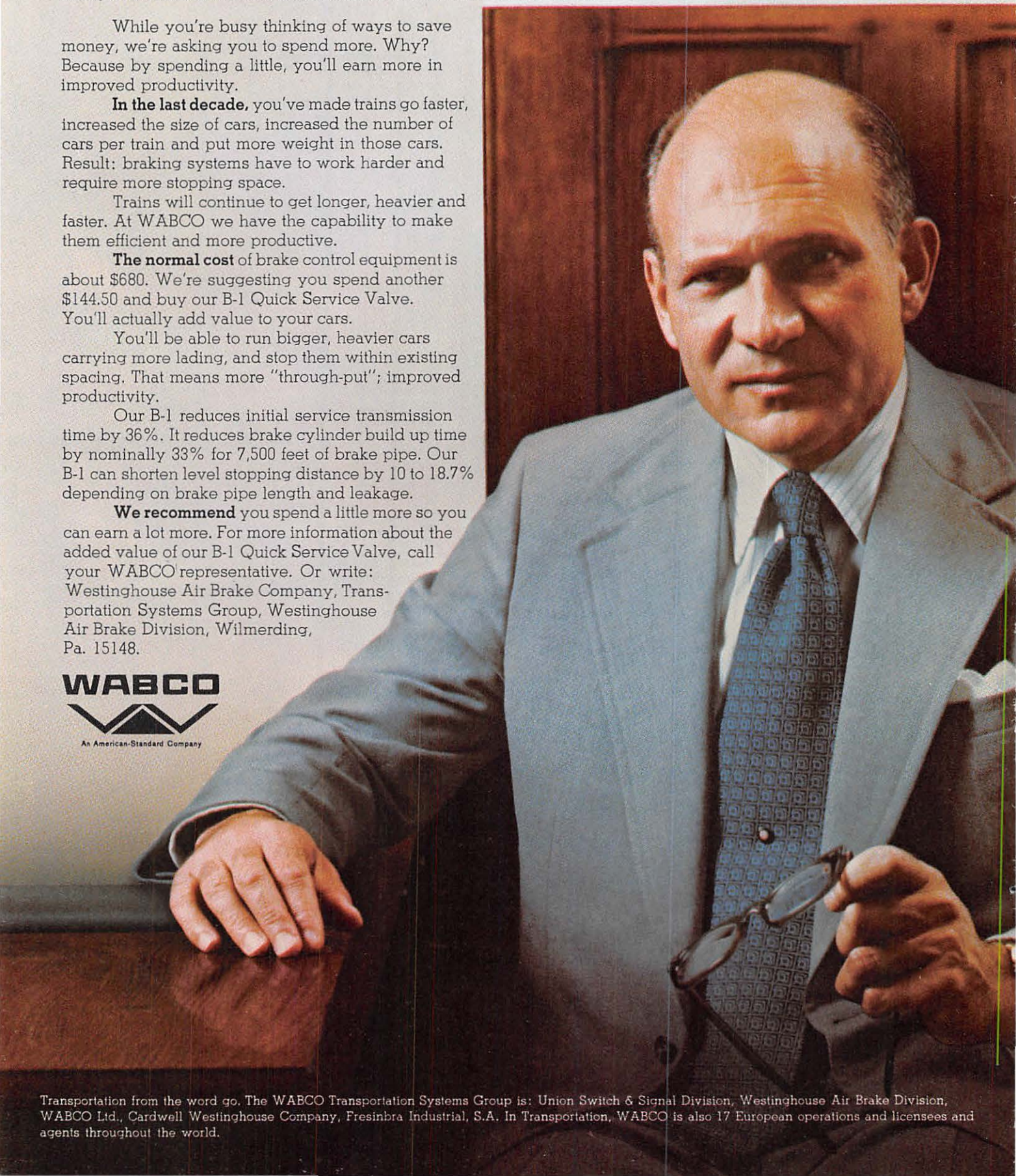

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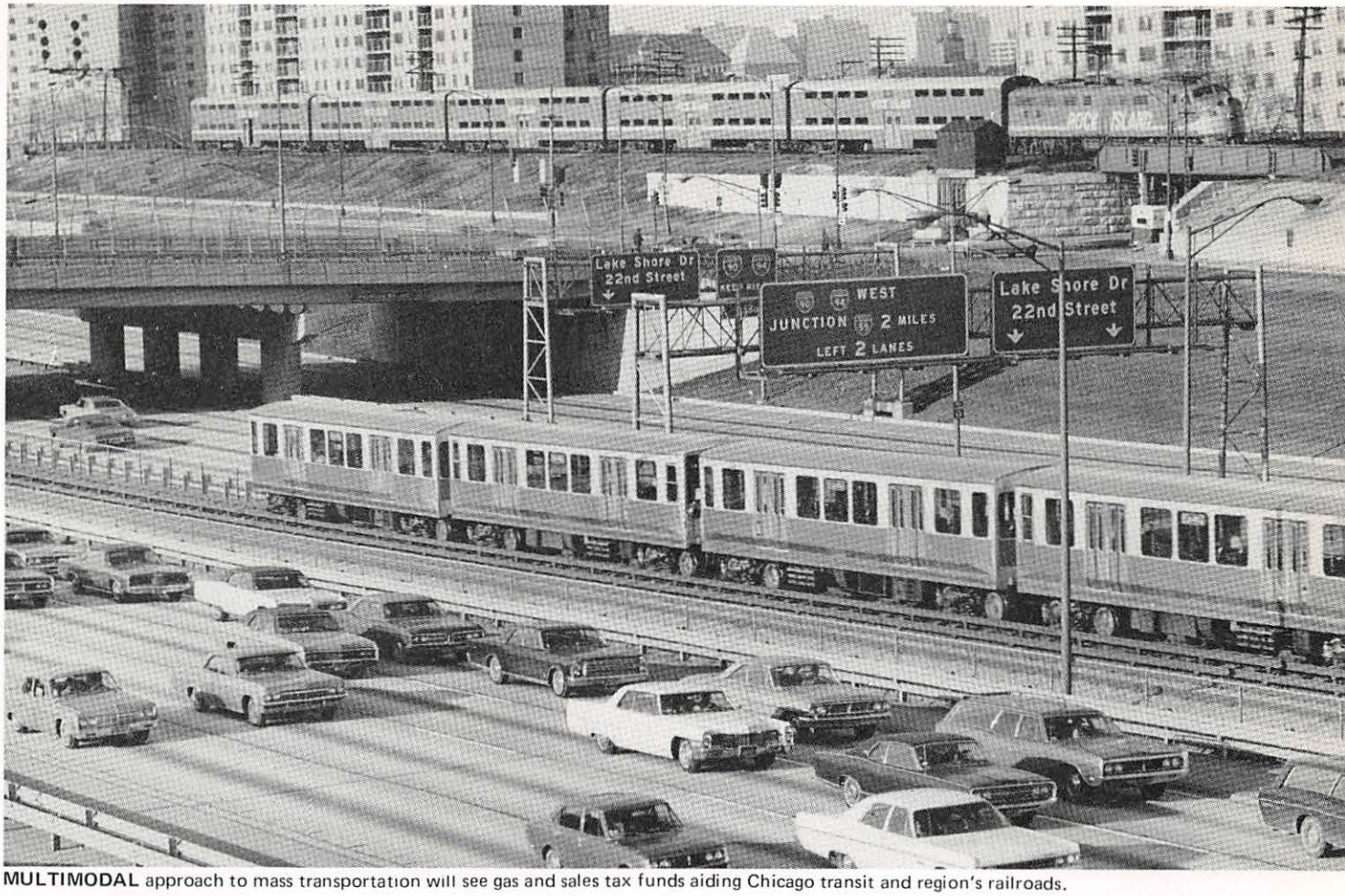

MULTIMODAL approach to mass transportation will see gas and sales tax funds aiding Chicago transit and region's railroads.

Chicago will vote on RTA March 19

The Chicago metropolitan area doesn't have a Regional Transportation Authority yet—but the odds are that it will, after a six-county referendum which will come March 19 when voters go to the polls for the state primaries.

There were times when agreement on RTA legislation seemed impossible—and, in fact, agreement came only at the end of a special legislative session which was called after the General Assembly failed to agree on a bill during its regular session. As one observer put it, after watching months of hassling involving Republican (majority) and Democrat (minority) leadership in the legislature, Chicago's Democratic administration and a Democratic governor with independent leanings and possibly higher political ambitions: "I'm not sure if this was the political process at its best—or at its worst."

Nobody else is quite sure either. But, the fact remains that the process did bring forth legislation which is (1) a compromise, and (2) generally acceptable to the private and public agencies now providing public-transportation services.

● **How much and how good.** Essentially, RTA is supposed to determine the quantity and quality of service in the six-county area. It will have the power to determine fares and schedules. From an operating standpoint, RTA could operate services itself, or it could provide funds to transportation agencies, or it could arrange purchase-of-service contracts. RTA may acquire systems by purchase or condemnation. It may build new systems. And, from a regulatory standpoint, RTA is designed to be almost self-sufficient: It would regulate its services; neither the authority itself nor its purchase-of-service agreements would be subject to Illinois Commerce Commission regulation; and RTA safety standards would take the place of those prescribed by the state commission.

Two of the major points-of-dispute during the long debate over RTA concerned financing and control. (A third point often seemed to be the question of who would get credit, but when the governor signed the bill all of the other credit-seekers were clustered around—and, if RTA works as it is supposed to, there ought to be enough credit to go around.)

● **The money question.** As for financing, money will flow into the operation from a variety of sources:

—RTA would have its own taxing powers. It could levy a tax of up to 5% on motor-fuel sales in the six-county area. It could also levy a parking tax. Taxing power is not open-end, but the authority could get additional taxing power through legislative action.

—RTA would get funds equal to three-eighths of 1% of the state sales tax collected in its area. It would also get $14 from each auto license fee paid in Chicago.

—RTA would receive $5 million a year from Chicago city government (or from other units of government in Cook County), and RTA would be barred from granting funds to the Chicago Transit Authority or from working out a purchase-of-service contract with CTA unless the $5 million is paid.

—RTA would be the primary recipient in its area of Federal and state transportation grants.

—RTA would have the power to issue

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Financing and control have been major problems in establishing RTA

up to $500 million in negotiable general-obligation bonds or notes (which would not be a debt of the state).

—Aside from the CTA-related restriction, the only other major restriction on RTA from a financing standpoint would be a requirement that it spend two-thirds of RTA-imposed-tax collections from suburban Cook County and the five outlying counties on public transportation in those areas.

● **Who's in charge.** Management? RTA would have nine directors, including a chairman and fulltime chief executive officer who would be chosen by the other eight directors. Of the eight, four would be appointed by the mayor of Chicago and two would come from suburban Cook County. The remaining two would be appointed by county-board chairmen from the outlying five counties. And, while this alignment puts majority representation in Cook County, it does come close to meeting a one-man/one-vote standard. It should be noted, too, that the chairman and chief executive must be (1) somebody whose skills in public transportation or management will stand the proof test, and (2) somebody who can command the "Yes" votes of six of the eight directors.

Service with the RTA board would carry with it a tolerable degree of compensation. Directors would be paid at a rate of $200 a day, up to an annual maximum of $25,000. The board would set the chairman's pay.

Even if RTA gets voter approval March 19, however, it may be a while before it actually gets rolling. First, while the law provides for reasonable haste in getting the board appointed and functioning, it also says that the board has up to nine months after its first meeting to adopt an initial set of rules and regulations. Second, the law says that RTA does not have to make its first purchase-of-service agreements before the end of June 1975. (It appears, however, that the board doesn't have to wait that long, or even until formal budget procedures are set up, to work up arrangements for grants or purchase-of-service pacts or other expenditures.)

● **As for labor...** Some other points are also worthy of mention.

—Employees don't have much, if anything, to worry about, especially since best-available thinking is that demand for public-transportation services can only increase. It is assumed that in most if not all cases, RTA will prefer to enter into purchase-of-service contracts and when this happens there will be absolutely no change in union contracts covering wages, rules, working conditions, benefits.

—Railroads strongly supported RTA legislation, though the law enacted doesn't by any means do everything the railroads originally thought ought to be done. Railroad sources have described the approved legislation as setting up a fair and workable RTA.

—Rail labor organizations supported RTA and helped work for its passage. Employee-protection provisions of the legislation were found to be acceptable.

—Through other legislation, emergency aid will be available. On a loan basis, the Chicago Transit Authority may receive more than $29 million, the commuter railroads more than $4 million and suburban bus lines $850,000. RTA has to repay the loans with interest within six years.

—RTA will have $500,000 in startup funds, none of which can be spent until after the referendum in March.

—Mass-transportation capital projects in the area outside of Chicago will get $75 million through an addition to previously-enacted bond authorizations. And, while the emphasis in the Chicago area is now on public transportation, inevitably, new legislation also did something for highways. Bond authorizations for highways have been kicked up from $600 million to $800 million, close to $140 million has been provided for planning and building supplemental freeways downstate, and RTA would be obligated to repay the state $12 million for highway work done in Cook County.

So, the Chicago metropolitan area does now have an RTA—or at least it is expected to after March 19. If it works well, probably it will eventually be forgotten that approval of RTA (1) took so long, and (2) came only after a display of politics-in-government which was hardly an example for a high-school civics class.

And what is it all going to cost? Estimates of requirements and yields have varied all over the lot. But those who have added it all up, under what finally got passed, figure that RTA will have a startup $170 million a year, or thereabouts, to work with. ■

CTA will need $58 million

In the Chicago metropolitan area, CTA's 1974 budget may illustrate better than any other single document the hazards of operating an urban mass-transportation system. The '74 operations estimates: Revenues, about $189.1 million; expenses, more than $245.8 million; operating loss, more than $56.6 million.

Actually, CTA figures it will need about $58 million in government assistance this year, when interest-and-principal payments on outstanding equipment trust certificates are added to the operating deficit. Half of the total, $29 million plus, will be provided in the form of loans under emergency-aid legislation passed by the state legislature. But, that will cover only half-a-year's losses, so along about June the authority will be in trouble, unless aid is forthcoming via RTA.

Estimated revenues for '74, it should be noted, are up slightly—by a little more than $3 million. But all the increase and more would be based on higher state reimbursement for CTA's carrying students and senior citizens at reduced fare levels. Estimates look for a decline in total ridership, by about three-tenths of 1%—despite the energy crunch and the fact that no fare increase is now contemplated. One footnote to the budget: Projected labor costs for 1974 will add up to more than 82% of total operating expenses—and about 107% of total revenues.

As for that looked-for decline in patronage, CTA Chairman Milton Pikarsky is not just sitting back and waiting for it to happen. He is urging a massive switch of motorists from highways to public transportation to (1) conserve energy and (2) help cover the rising costs of transit services.

Currently, CTA could handle at least 15% more passengers during rush hours and it could absorb a 300% (or higher) increase in off-peak hours. CTA has been taking delivery on 545 new buses, but it has also put on reserve-status more than 200 old buses that were scheduled for replacement. If those old units were to be kept in service, Pikarsky noted, rush-hour capacity could be still further increased.

Photo by G. L. Thorp, Putney, Vermont—as printed in POPULAR PHOTOGRAPHY, November, 1970

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Barry Commoner on nationalization

"It would be a bargain at $100

Writing in the December 1973 issue of Harpers, Dr. Barry Commoner, the environmentalist, made a case for railroad nationalization that was sufficiently persuasive to get him invited onto the Dick Cavett show and, a few days later, onto the Today show. Dr. Commoner said subsequently that he was only trying to stir up a national debate on the subject, which he would be glad to discuss with railway men anytime. With this in mind, Railway Age sent special writer Tom Kizzia to St. Louis, where Dr. Commoner is professor of plant physiology at Washington University, to seek an elucidation of his views. Excerpts from the taped interview follow.

RA: How much confidence do you have that the U.S. could avoid problems that other nationalized railroads have had, in terms of decreasing freight efficiency? Freight costs are higher overseas; equipment is poor; shippers have to supply their own modern cars; and in Britain for example, the railroads carry only 15% of the nation's freight, whereas here we carry 40%. From an ecological point of view, when you talk freight, aren't our railroads doing a far better job than the nationalized ones?

COMMONER: I would say that, clearly, we have some talents in the present railroad system, and we ought to retain those talents. I think we should be able to, and lead the way in having efficient, nationalized railroads. No reason why we couldn't do it better than everybody else.

RA: In other countries, nationalization has not always tended to expand systems. In Britain they now have 40% less right of way than they did when they nationalized, and two-thirds of the labor force has been cut out. Amtrak, of course, represents at least quasi-nationalization, and the first thing Amtrak did was to cut passenger service in half.

COMMONER: Nationalization is not an automatic cure; you could nationalize and reduce the efficiency of the railroads, obviously.

Let me put it this way: public ownership of the railroads is a necessary but not sufficient condition.

Everyone says you'll get a terrible bureaucracy and so on. Well, who knows? Nowhere is it written in golden tablets that you have to have a terrible bureaucracy. It's time we learned how to do things better.

RA: You said in your article, "Not only are the nationalized railroads willingly in the business of carrying passengers, they also do it cheaply." But doesn't one have to consider the cost to the taxpayers for subsidies, as well as the ticket price?

COMMONER: That's a social decision, to use taxes to make it cheaper for people to use the railroad. That's what politics is about. The subsidies are not really that large.

RA: France's is well over $1 billion a year, and growing.

COMMONER: But in terms of percentage, I don't think it would make much difference in the passenger rates if you added that in. And anyway, that's a social decision.

The UP argues that the revenue per employee is very low. And if you look at the Italian railroads, the wages paid out are more than the revenue of the railroad.

RA: That's another problem. In Italy the railroads are almost an employment dumping ground, used for taking people off welfare.

COMMONER: Absolutely. I don't see anything wrong with that, if a society decides to do it. I mean, everybody screams about welfare; I think if the railroads or anything publicly-operated like the post office has a place where people who can't get work otherwise can be usefully employed, why not? Once it becomes a social property, society can decide to do with it what it wants.

RA: You argue we should concern ourselves more with social profit than private profit; but in nationalizing the railroads, wouldn't we run the risk of introducing a third motive: political profit?

COMMONER: I think you do run that risk. Once you recognize that something is going to be determined by political interest you run the risk that the decisions that are made will not be in the best interests of society as a whole.

But that's the risk that's inherent in democracy. I'm willing to take it.

RA: Do you find it disquieting that while whole sections of the country are now without passenger service, we nonetheless have two transcontinental trains crossing Montana, and that at one time a modern turbotrain was pressed into service between Washington and West Virginia—both resulting, apparently, from the influence of politicians from those two states?

COMMONER: That's all deplorable, and I think the situation should be made clear to the public. It's clear we've got a long way to go to maximize the social value of politics. We know that very well from what's going on in Washington right now.

But it seems to me that you have to accept the challenge of democracy: to try to find a way of having popular understanding of issues enhance the social value of what we do. If you accept the idea that anything the government does is going to be wrecked by politics, then you might as well throw up your hands about political life in this country as a whole. Forget about Watergate, don't worry about the enormous burden of so-called defense expenditures, don't worry about education, and so on. Well, I can't go that route.

RA: That's the citizen talking, not the scientist. Could the scientist make arguments for nationalizing all forms of carriage?

COMMONER: Sure you could. And you could make very effective arguments about nationalizing the fuel industry right now.

RA: You're talking about making arguments, though, and not advocating one or the other.

COMMONER: Read the last paragraph in "The Closing Circle." What I pointed out is that the issues that are raised by these considerations represent changing the course of history. And I am not about to put myself, as a single individual or a member of a committee, in a position to advocate exactly how the course of history should be changed. That's something which the American people as a whole have to face.

It may very well be that the advocates of private ownership of the railroads will make a better case for it than those who favor nationalization. Well, fine. They haven't done it yet. I think it's all been ducked.

If the article has any value at all, it's as a means of putting the issue in the hands it belongs in, and that is everybody's.

RA: How did you, as an ecologist, come to write particularly about railroads?

COMMONER: One of the basic problems that any environmentalist faces is

billion"

to work out ways of improving the ratio between the social benefit we get from using our resources and the cost in environmental degradation and in loss of resources.

As you know from "The Closing Circle," I've been concerned with puzzling out this ratio for various productive activities. When I went into transportation, and discovered the very sharp discrepancy between the efficiency with which railroads on the one hand, and trucks on the other, use fuel and other resources, it impressed me as a classical example of the principle.

All of us at the Scientists Institute for Public Information—we publish the magazine Environment—keep a pretty close watch on the area of environmental impact statements. And so when it became clear that there was an impact statement on the Penn Central Railroad, I got hold of it; it raised the issues in a very clear way, and I felt that this was a good opportunity to deal with a problem that was, so to speak, classical in its directness and simplicity.

RA: Then did you get into the idea of nationalization through your study of the Penn Central?
COMMONER: Yes. The way I got into this was my interest in the resource efficiency of railroads. And the way I got into the economic side was simply by doing an analysis of the arguments raised by the government in the environmental impact statement.

What I based it on was the bill submitted by the DOT, which had in its first paragraph the assertion that nationalization is not in the national interest. The environmental impact statement obviously had to confront the impact of the DOT's reorganization plan, since it would shift a good deal of the freight from trains to trucks. The reason for that was to make the railroad profitable and avoid nationalization. Since the environmental impact statement had to consider the alternatives, they *had* to consider the alternative of nationalization. They made an assertion that nationalization would reduce the resource efficiency of railroads.

I accepted that as a challenge.

The next thing I did was to look up the authority for this statement. And what they gave was a report published by the Union Pacific on foreign railroads. One of the things about environmental study is that you always look for connections, so I then looked for the origin of the obvious fact that nationalized railroads ran at a loss. And I must say I was astonished to find that there was a very big operational difference: the nationalized railroads carried a lot of passengers.

RA: On the other hand, nationalized railroads seem to have a lot of problems handling freight.
COMMONER: The only data I had was the spread of tables in that report. There was a vast difference in the proportion of revenue that came from passengers in the nationalized railroads and in the U.S. The other thing I discovered was that the nationalized railroads had shorter freight hauls. So the logical conclusion, since everybody says that passenger hauling is less profitable than freight, is the more passengers they hauled the more loss the railroad incurred.

What has happened in Europe and Japan is that the societies have decided that they want to have passengers carried by the railroads and decided that the loss was worth it.

Now you notice that the article does not come out for nationalization.

RA: I think that's what everyone's impression has been.
COMMONER: Unfortunately, the subhead says that it's an argument for nationalization. I had no control over that. But if you read the article it does precisely what I said in my book is the role of the scientist. Namely, to describe the benefits and the cost, and to put the issue, which is a political one, before the people.

As it happens, as one voter among millions, I would vote for nationalization if I had the chance. But that is a political choice. What I did in the article was to analyze the problems of the railroads and point out that the choice was between resource efficiency and private enterprise.

I looked at the financial data in the [AAR] yearbook, and discovered something which I found shocking. The railroads in the U.S. as a whole were following the same financial pattern which brought the Penn Central to bankruptcy. They were eating up their working capital. Then I asked, were they running at a loss? I realized they were paying out dividends and taking them out of working capital.

RA: Are you aware that these railroads and affiliated enterprises invested about $2 billion in railroad capital improvements in 1973, a 10% increase over 1972, despite a decline in operating profits?
COMMONER: Well, I was arguing on the basis of long-term trends, not what happened in the last year. As far as I can tell from the handbook, American railroads are running out of working capital.

RA: What about Federal subsidies for capital improvements—for example, the kind of right-of-way subsidies which railroad competitors have long enjoyed?
COMMONER: Why should I, as a taxpayer, be paying to build a railroad so that it can make a profit for whoever owns the stock? What you're making then is a social decision, and you might as well face the fact that society is supporting the railroads. And I speak as a railroad stockholder.

RA: How do you feel about the present Northeast plan, which would cut out the flab, and turn a new corporation over to private enterprise—making provision for subsidizing branchlines that would otherwise be abandoned?
COMMONER: It's obviously a compromise that doesn't face the real issue. Which is not simply to keep the railroads tottering along as they are now; as I pointed out in the article, the problem is we have to recapture a lot of the freight and passenger traffic lost by the railroads if we're to cope with the energy crisis.

The environmental view of this situation is that it was sheer idiocy to let the railroads deteriorate to the extent they did, and we are not going to be able to cope with the need to conserve energy as is. The present crisis, of course, is hoked up. It's been manipulated by the oil industry. But in twenty years it's going to be pretty hard to come by petroleum and the railroads are going to have to be built up. The time to start is now.

RA: On the question of branchline abandonments: Wouldn't it be more ecologically sound to ship by truck than to string two or three cars behind a locomotive?
COMMONER: I don't see that argument. Take the classic case of a branchline with one plant at the end of it. I don't see any reason why some kind of donkey engine couldn't be put on that to carry five freight cars. Or something run with a handcar, if you like. So long

(Continued on page 47)

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the first lesson
in going is stopping.

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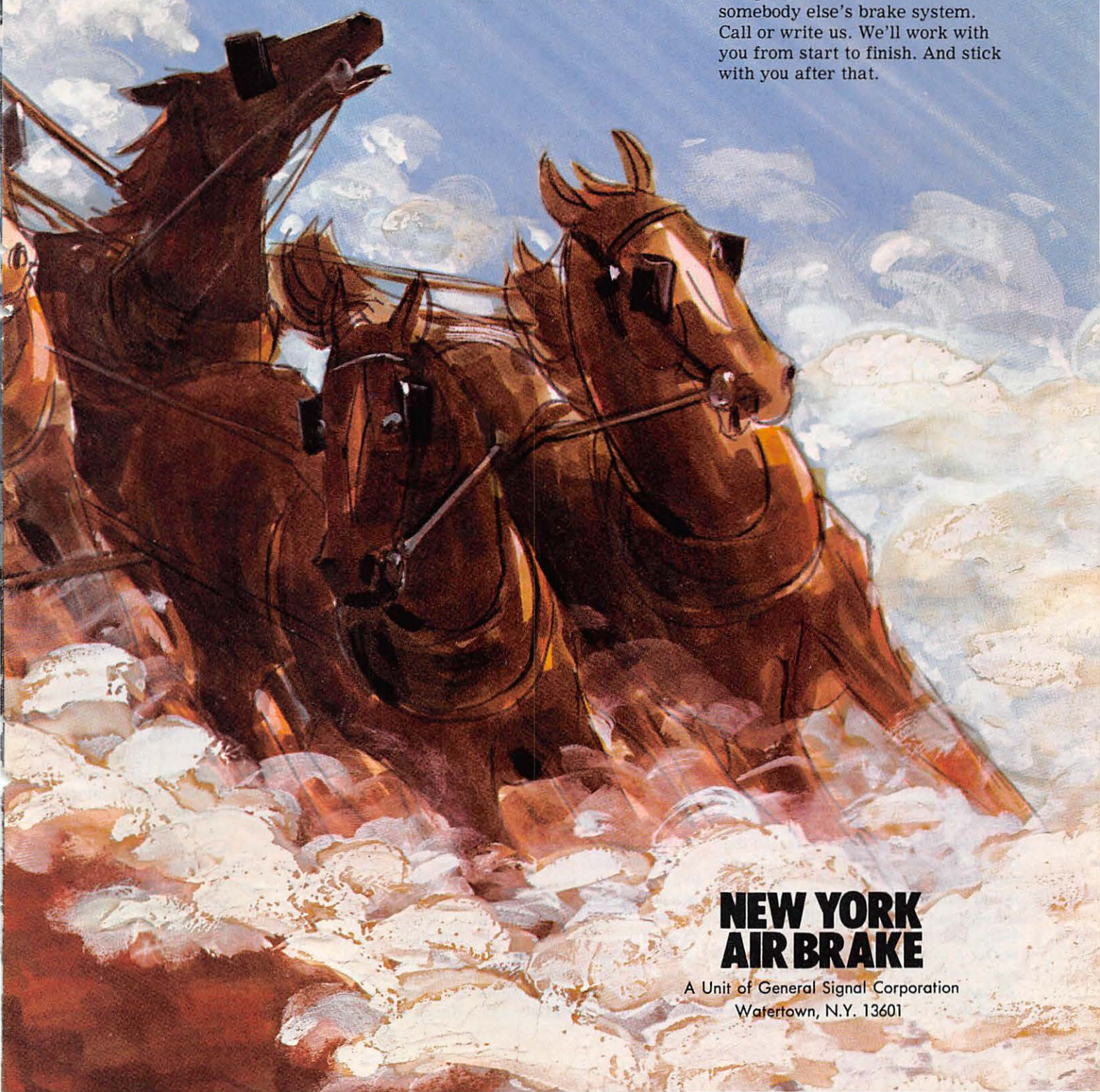

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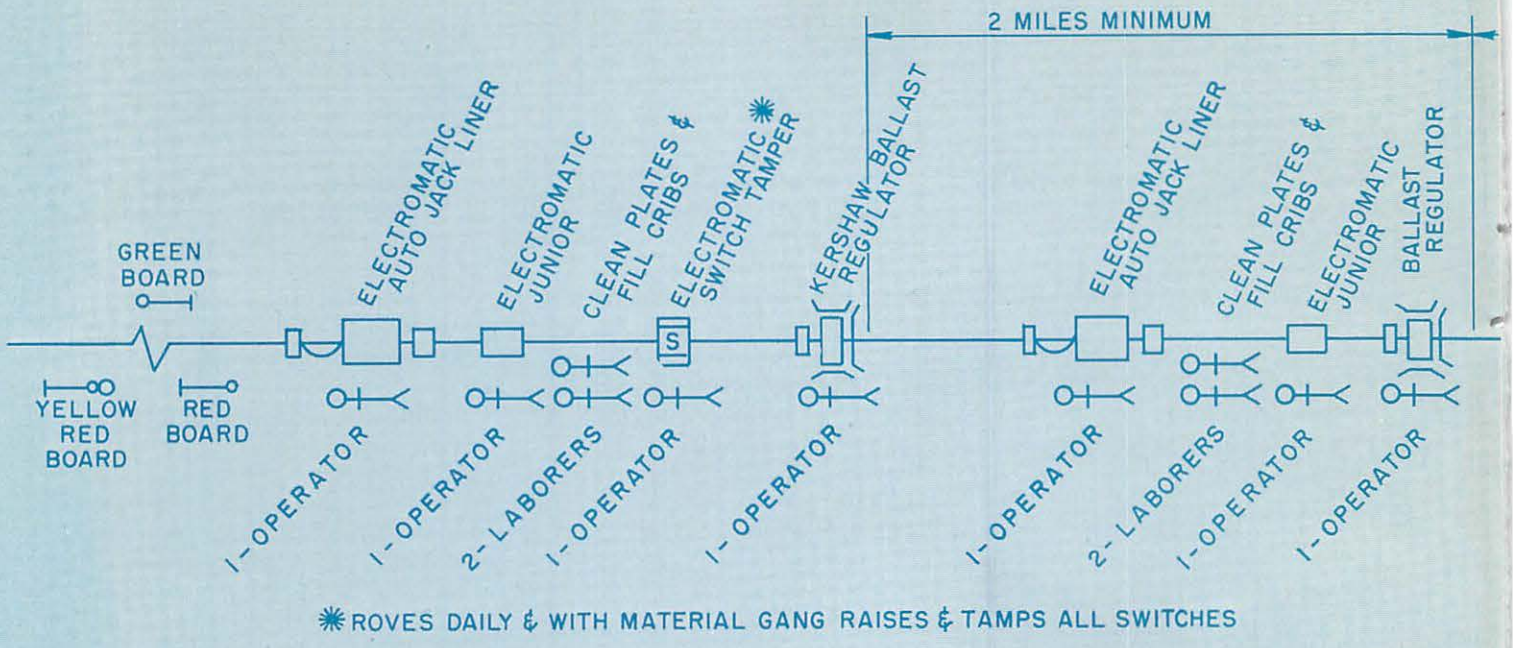
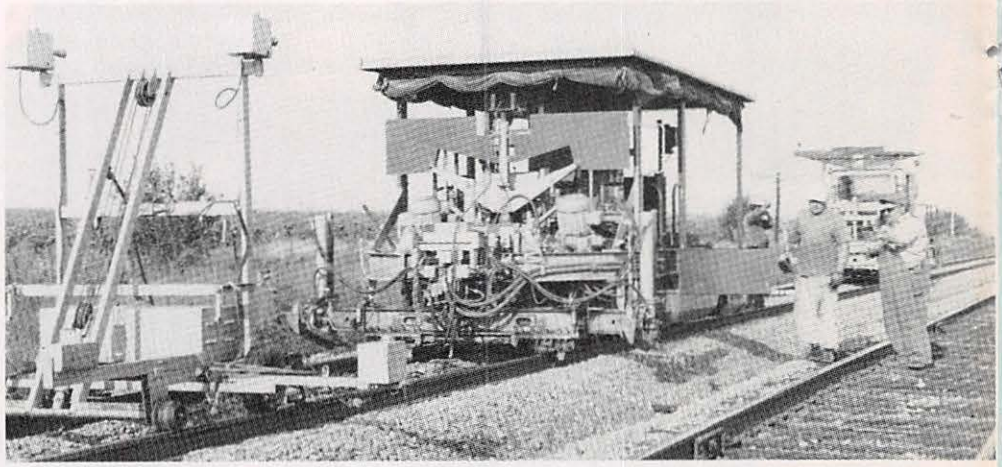


THE "SA" GANG on the Chicago & North Western is a combination of three smaller "DA" gangs. Starting two miles apart each day, the combined

C&NW reorganizes its M/W work to

Chicago & North Western has a sizable program for rail-renewal, tie-renewal and surfacing in its 1974 budget. The work is being carefully planned and scheduled so as to maximize on-track time for track gangs and at the same time not result in more than one possible train-delay point during daylight hours on each important train route. The train runs are from Chicago to Omaha, Chicago to Kansas City and Chicago to the Twin Cities.

To accomplish this goal, the railroad has organized several large system gangs and the transportation department has promised full cooperation in giving the gangs a high priority for on-track production time. The railroad knows that it can achieve its goal because its experience before freeze-up last year proved it could be done.



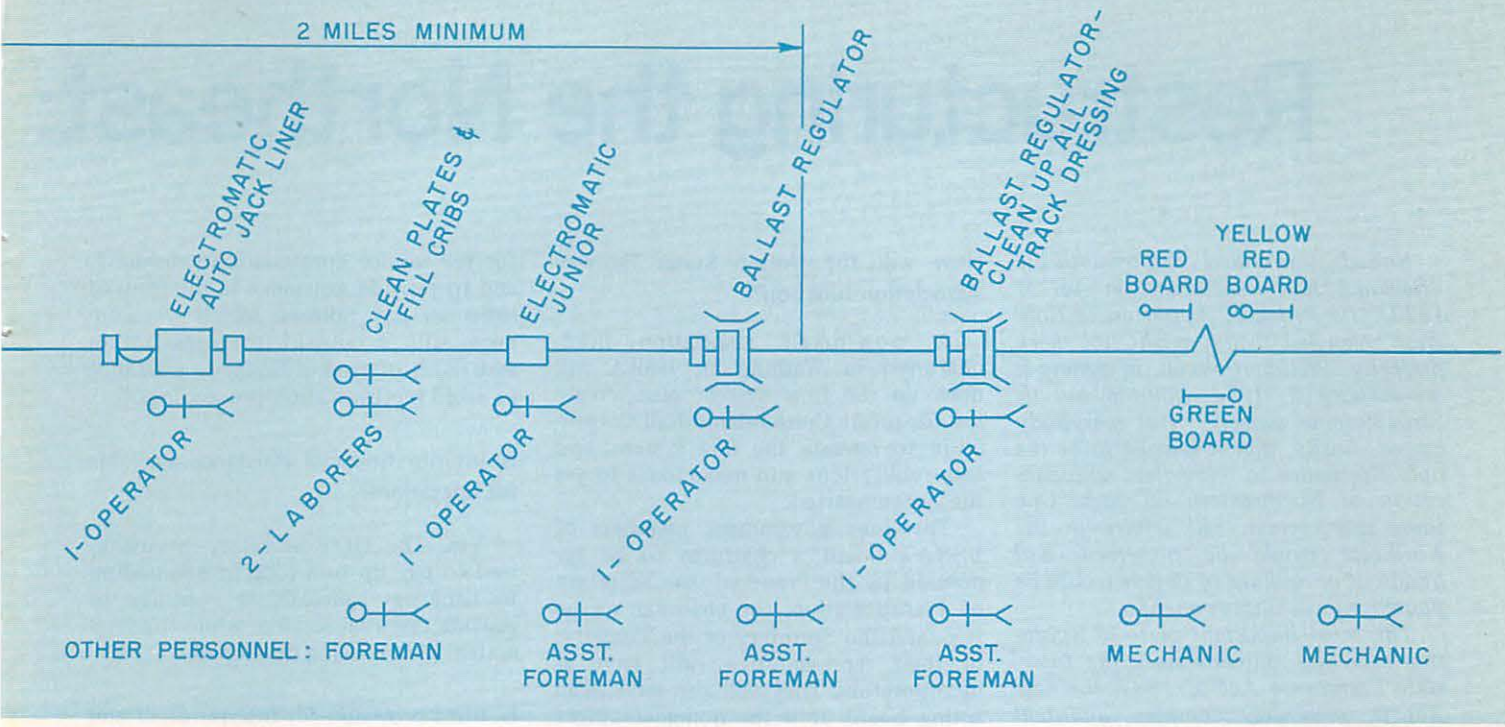
ELECTROMATIC Autojack tamper/liner raises and tamps every other tie and Junior tamper tamps the alternate ties. Traffic is routed around the gang. Work is scheduled so as to have no more than one train-delaying point during daylight hours on each important train run.

The need for larger track gangs was pinpointed last summer when North Western officers were studying a system map that showed by color scheme the on-time performance of trains as affected by track conditions. The worst on-time performance was on the road's double-track line of the Illinois Division between Proviso Yard near Elmhurst, Ill., and Clinton, Iowa. An on-the-ground inspection of this territory revealed that track surfacing and lining would accomplish a great deal in eliminating most of the conditions contributing to the delays.

● **Get a late start.** About 225 miles of track, including turnouts, improvement of grade crossings where necessary and installation of additional anchors were involved. Because work was to commence in the middle of August, an accelerated program was developed to complete the work before winter would halt it. The road's division surfacing gangs were organized to cover about two miles of track daily. It was decided to combine three of these gangs into a system gang, designated Type "SA" surfacing gang, that would cover six miles of track daily, under the direction of a general foreman.

Each division surfacing gang, designated Type "DA," included a foreman, three machine operators and two laborers. It was equipped with an Electromatic Autojack tamper/liner, an Electromatic Switch Tamper and a Kershaw Ballast Regulator. In operation, the tamper/liner raises and lines track at every other tie and the switch tamper tamps alternate ties. When a turnout or interlocking is encountered, the tamper/liner proceeds beyond the location, raising, lining and tamping every tie while the switch tamper, assisted by a local track force, raises and tamps the turnouts. The switch tamper also works with a crossing gang at road crossings.

Each unit in the Type "SA" surfacing gang is assigned a production goal of two miles per day. At the start of each day, they begin work two miles apart. Some modification was made in the machinery consist for the "SA" gang, compared to that for "DA" units.



gang will raise and surface six miles of track per day.

reduce train delays

The leading work unit, in addition to the Electromatic Autojack tamper/liner, was assigned an Electromatic Junior tamper. This permits the switch tamper to roam as required and to concentrate its efforts on turnouts and road crossings. The switch tampers of the second and third work units were replaced with Junior tampers and an additional Ballast Regulator was placed behind the third work unit to finish the track dressing. Also, two field mechanics, furnished with a van containing spare parts and power tools, were assigned to the large gang.

The "SA" gang is served by a 50-car unit ballast train which can be unloaded in less than three hours. The ballast cars were converted from 70-ton covered hoppers by removing the roof and equipping them with MK ballast doors which facilitate unloading and direct the flow to the inside or outside of each rail, as desired.

The railroad reports that the "SA" gang was successful from the start, surfacing and lining track at a cost of five cents per track-foot. The three work units vie with one another to complete their two miles first. The lead unit does its best to cover more track than the ones behind. A second "SA" surfacing gang was organized and put to work on a 60-mile stretch of track between California Jct., Iowa, and Missouri Valley, on the Iowa Division.

● **Gang given high priority.** With the complete cooperation of the road's transportation department, the high-speed gang is given high priority for on-track time. The aim is to obtain six to eight hours per day or more. On double-track territory, the gang works in one or two signal blocks, which average about six miles long on this road, and trains are routed around them. On one day the big gang will work on the westbound track. On the following day it will shift its operations to the eastbound track.

Later, the original "SA" gang was moved to the road's single-track line between Marshalltown, Iowa, and Kansas City, Mo. Again, this gang received high priority for on-track time with trains being operated at night, bunched and fleeted past the gang during noon hour, or, in the case of two important trains, routed over a foreign road. Moving trains over a foreign road to accommodate a track gang is rare indeed. But, North Western's management takes the view that it is not the saving that can be made by one department that counts, the important thing is to achieve economy for the railroad as a whole.

● **Big plans for 1974.** This year the railroad may work three of the high-speed surfacing and lining gangs during the latter part of the year to insure completion of the program. It also proposes to organize comparable high-speed tie-renewal gangs and, for the first time in the road's recent history, to work them in conjunction with surfacing gangs. The "SA" tie-renewal gang will work on track where renewals run 600 or more per mile and will cover about 1½ miles per day. A smaller "DA" tie-renewal gang also will be organized for making renewals of less than 600 per mile.

So as not to have more than one train-delay point on important train routes, a large amount of advance planning is required for scheduling the work of the system and division gangs, as well as the major B&B gangs. To this end, the engineering department was recently reorganized. A director of maintenance planning and a director of maintenance operations have been appointed, both reporting to L.F. Fox, assistant chief engineer-maintenance.

The director of maintenance planning is responsible for system planning, scheduling men, materials and work equipment and for determining the economy of detouring trains around the major gangs. Methods have been developed for comparing the cost of this practice relative to the cost of delaying trains. The latter includes the extra cost of fuel for stopping and starting trains, the cost of per diem if a train does not arrive to make a connection with another road, and the cost of further train delays when engines arrive off schedule.

The director of maintenance operations is responsible for seeing that the track or bridge work is performed as scheduled.

The division forces are to be organized along similar lines. Their primary responsibility will be to recommend programs for their ordinary division maintenance, as well as to provide field supervision for the heavy production gangs. ■

Restructuring the Northeast:

Nobody was entirely happy with the "Regional Rail Reorganization Act of 1973." Its strongest supporters in Congress conceded that it might not work perfectly. President Nixon, in signing it on January 2, 1974, pointed out its "troublesome aspects." But everybody agreed, finally, that it seemed to be the only alternative to immediate nationalization of Northeastern railroads. One thing was certain: rail service in the Northeast would be preserved, and hundreds of millions of dollars would be poured into its improvement.

The most important piece of legislation affecting railroads since the Interstate Commerce Act of 1887, the new Act is immensely complex, and will probably provide employment for legions of lawyers for years to come. The following analysis of its main provisions was prepared by the editors of Railway Age.

What will be the first step toward restructuring the Northeastern railroads?

Within 30 days after enactment of the "Regional Rail Reorganization Act of 1973," the Secretary of Transportation will submit to Congress, to the United States Railway Association, to the Rail Services Planning Office (which is to be set up within the ICC), and to other interested parties his "conclusions and recommendations with respect to the geographic zones within the region in and between which rail service should be provided and the criteria upon which such conclusions and recommendations are based." The Rail Services Planning Office will conduct public hearings on these recommendations.

How big will the final system be?

The size of the system is not covered in the legislation, but debate in the Senate suggested that it would be not less than 15,000 miles and not more than 19,000.

Will all Northeastern carriers now in reorganization be included?

Not necessarily. Bankruptcy judges have 120 days after enactment to decide whether railroads under their jurisdictions may be reorganized on an income basis within "a reasonable length of time" under Section 77 of the Bankruptcy Act. If this is the case, they may opt to continue present reorganization proceedings.

How will the United States Railway Association function?

A non-profit association headquartered in Washington, USRA will draw up the final system plan; create the for-profit Consolidated Rail Corporation to operate the new system; and issue obligations and make loans to get the system started.

The four government members of USRA's board—a chairman to be appointed by the President; the Secretary of Transportation, the chairman of the ICC, and the Secretary of the Treasury, or their representatives—will serve as incorporators. They will also serve as an acting board until the non-government members are appointed by the President and approved by the Senate. These members will be recommended by the AAR (1), the AFL/CIO (1), the National Governors Conference (1), the National League of Cities and Conference of Mayors (1), shipper groups (2), and financial interests (1). The executive committee will consist of the government members and two others selected by the board.

What principal funds did Congress make available?

USRA is empowered to issue obligations up to a total of $1.5 billion, of which no more than $1 billion may go to the Consolidated Rail Corporation. Of that amount, at least $500 million must be spent for rehabilitation and modernization of the Corporation's rail properties. The remaining $500 million of the $1.5 billion is earmarked for improvements to passenger lines in the Northeast Corridor between Washington and Boston; these lines are to be sold or leased to Amtrak after CRC comes into operation, but it is the clear understanding of Congress that the improvements will be started immediately—in fact, are to be completed within five years.

Congress also provided $250 million for labor protection costs (see below).

Who may qualify for a USRA loan?

The Association is authorized to make loans to the Consolidated Rail Corporation and to Amtrak as well as to "other railroads (including a railroad in reorganization which has been found to be reorganizable under Section 77), for purposes of assisting in the implementation of the final system plan; to a state or local or regional transportation authority under Section 403 [providing for rail service continuation subsidies], and to provide assistance in the form of loans to any railroad which (A) connects with a railroad in reorganization and (B) is in need of financial assistance to avoid reorganization proceedings."

Is interim financial assistance available for operations?

Yes. The DOT Secretary is authorized to pay up to a total of $85 million to bankrupt railroads to continue to provide essential services while the final system plan is being developed.

Is there provision for interim plant and equipment improvements?

Prior to the transfer of rail properties to the new Corporation, the Association is authorized to enter into agreement with the railroads for "acquisition, maintenance, or improvement of railroad facilities and equipment necessary to improve property that will be in the final system plan." Obligations up to $150 million are authorized for this purpose.

What broad goals did Congress set for the new Northeast system?

"(1) The creation, through a process of reorganization, of a financially self-sustaining rail service system. . . .

"(2) The establishment and maintenance of a rail service system adequate to meet the rail transportation needs and service requirements of the region;

"(3) The establishment of improved high-speed rail passenger service, consonant with the recommendations of the [DOT] Secretary in his report of September 1971 entitled "Recommendations for Northeast Corridor Transportation";

"(4) The preservation, to the extent consistent with other goals, of existing patterns of service by railroads (including short-line and terminal railroads), and of existing railroad trackage in areas in which fossil fuel natural resources are located, and the utilization of those modes of transportation which require the smallest amount of scarce energy resources and which can most efficiently transport energy resources;

"(5) The retention and promotion of competition in the provision of rail and other transportation services in the region;

"(6) The attainment and maintenance of any environmental standards,

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particularly the applicable national ambient air quality standards and plans established under the Clean Air Act Amendments of 1970, taking into consideration the environmental impact of alternative choices of action;

"(7) The movement of passengers and freight in rail transportation in the region in the most efficient manner consistent with safe operation, including the requirements of commuter and intercity rail passenger service; the extent to which there should be coordination with the National Railroad Passenger Corporation and similar entities; and the identification of all short-to-medium distance corridors in densely populated areas in which the major upgrading of rail lines for high-speed passenger operation would return substantial public benefits; and

"(8) The minimization of job losses and associated increases in unemployment and community benefit costs in areas in the region presently served by rail service."

How will USRA proceed initially in drawing up the final system plan?

The Association is directed by the Act to:

"(1) Prepare a survey of existing rail services in the region [the states of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, Ohio, Indiana, Michigan, Illinois, and the District of Columbia, plus those portions of contiguous states containing rail properties owned or operated by railroads doing business primarily in the "region"], including patterns of traffic movement; traffic density over identified lines; pertinent costs and revenues of lines; and plant, equipment and facilities. . . .

"(2) Prepare an economic and operational study and analysis of present and future rail service needs in the region; the nature and volume of the traffic in the region now being moved by rail or likely to be moved by rail in the future, the extent to which available alternative modes of transportation could move such traffic as is now carried by railroads in reorganization; the relative economic, social and environmental costs that would be involved in the use of such available alternative modes, including energy resource costs; and the competitive or other effects on profitable railroads;

"(3) Prepare a study of rail passenger services in the region, in terms of scope and quality;

"(4) Consider the views of the [Rail Services Planning] Office [to be set up within the ICC]" and other interested parties.

"(5) Consider methods of achieving economies in the cost of rail system operations in the region including consolidation, pooling, and joint use or operation of lines, facilities, and operating equipment; relocation; rehabilitation and modernization of equipment, track, and other facilities; and abandonment of lines consistent with meeting needs and service requirements; together with the anticipated economic, social, and environmental costs and benefits of each such method;

"(6) Consider the effect on railroad employees of any restructuring of rail services in the region;

"(7) Make available to the [DOT] Secretary, the Director of the [Rail Services Planning] Office, and appropriate committees of the Congress all studies, data and other information acquired or developed by the Association."

What are the main duties of the Rail Services Planning Office?

This office—established within the ICC, with a director appointed by the ICC chairman—will evaluate the Secretary's initial report on rail services in the region, which is due within 30 days after enactment; and submit its own report to USRA within three months. The Office will weigh the views of states and cities, shippers and consumers, and conduct public hearings.

This Office also, within 180 days of enactment, will publish standards for determining "the revenue attributable to the rail properties," the "avoidable costs of providing service," and "a reasonable return on the value."

The Office, further, will assist state, local and regional transportation agencies in determining whether certain lines are suitable for rail service continuation subsidies.

How much money is available for branch-line subsidies?

A total of $90 million for each of the two fiscal years following adoption of the final system plan. The Federal share will be 70% and the local share 30%.

For localities wishing to purchase a branch line, provision is made for 70%

Timetable

Jan. 31, 1974: Secretary of Transportation recommends areas to be served by the new system.

May 1, 1974: ICC's Rail Services Planning Office, after hearings, submits its evaluation of the Secretary's recommendations.

May 1, 1974: Each railroad bankruptcy court decides whether its carrier is reorganizable on an income basis under Section 77.

June 30, 1974: Rail Services Planning Office publishes standards for determining reasonable rate of return on rail properties.

Oct. 28, 1974: USRA publishes preliminary system plan; Consolidated Rail Corporation is established.

Dec. 27, 1974: Rail Services Planning Office, after hearings, submits its evaluation of the preliminary plan.

Feb. 25, 1975: USRA's executive committee submits final system plan to USRA board.

Mar. 27, 1975: USRA board approves final system plan by majority vote, and sends it to Congress.

April 26, 1975: ICC submits its evaluation of the final system plan.

May 26, 1975: Barring a resolution of disapproval by either House of Congress, the final system plan is accepted.

Aug. 24, 1975: Final system plan is submitted to the respective bankruptcy courts, and to the special court which will order the transfer of rail properties. CRC startup to follow within 20 days.

New corporation will revert to private control only after half of debt to U.S. is paid off

Federal aid in acquisition, plus 70% Federal aid for modernization.

What are the criteria for branch-line subsidies?

The Act states that "Rail properties are suitable [for subsidies] if the cost of the required subsidy for such properties per year to the taxpayers is less than the cost of termination of rail services over such properties measured by increased fuel consumption and operational costs for alternative modes of transportation; the cost to the gross national product in terms of reduced output of goods and services; the cost of relocating or assisting through unemployment, retraining, and welfare benefits to individuals and firms adversely affected thereby; and the cost to the environment measured by damage caused by increased pollution."

What is the timetable for delivery of a final system plan?

Within 300 days after enactment of the "Regional Rail Reorganization Act of 1973," the United States Railroad Association will publish a preliminary system plan. The ICC's Rail Services Planning Office will hold public hearings and provide its critique and evaluation to USRA not more than 60 days later.

Within 420 days after enactment, USRA's executive committee will submit a final system plan to USRA's board. Within the next 30 days, the board will approve a final system plan by majority vote. The ICC will then have 30 days to submit its evaluation of the final plan delivered to Congress.

What authority will Congress have over the final plan?

The plan will be deemed approved by Congress unless, at the end of the first period of 60 calendar days of continuous session of Congress after the date of transmittal, either the House or the Senate has passed a resolution stating that it does not approve the plan. In the latter event, a revised plan will be prepared by USRA. Each revised plan will be submitted to Congress for review until an acceptable plan is produced.

What provisions are made for judicial review?

All judicial proceedings with respect to the final system plan will be consolidated in a special three-judge Federal court (no member of which may be a judge assigned to an earlier Northeastern reorganization proceeding). The special court will have the powers of a reorganization court. It will have the power to "order the conveyance of rail properties of railroads leased, operated or controlled by a railroad in reorganization in the region."

The association must deliver the final system plan to the special court within 90 days after its effective date; within the same period, it must deliver the plan to the respective bankruptcy courts, stating the disposition of properties of the railroad in reorganization.

After the rail properties have been conveyed to the Corporation or to profitable railroads operating in the region, the special court can decide whether transfers and conveyances have been done in a manner "fair and equitable" to all concerned; finding that not to have been the case, it can take appropriate corrective action, including the reallocation of the Corporation's securities.

How will the transfers of rail property be effectuated?

"All rail properties to be transferred to the Corporation by a profitable railroad, by the trustees of a railroad in reorganization, or by any railroad leased, operated or controlled by a railroad in reorganization in the region shall be transferred in exchange for stock and other securities of the Corporation (including obligations of the Association) and the other benefits accruing to such railroad by reason of such transfer."

Properties conveyed to a profitable railroad by trustees of a bankrupt railroad, or its subsidiary, will be in exchange for "compensation from the profitable railroad."

What will happen to rail properties not included in the final system plan?

The Act provides that the final system plan will not only designate which properties are to be transferred to the Consolidated Rail Corporation, but also those that will be offered for sale to a profitable railroad; those that will be purchased, leased or otherwise acquired from the Corporation by Amtrak; and those that may be purchased or leased from the Corporation by a state or local or regional authority to meet the needs of commuter and intercity passenger service. Remaining properties may be designated for use by "highways, other forms of transportation, conservation, energy transmission, education or health care facilities, or recreation."

When, and how, will the Consolidated Rail Corporation come into being—and when will it revert to private control?

CRC will be set up as a for-profit corporation, with the status of a "common carrier by railroad," within 300 days after enactment of the Act. Incorporators will be members of USRA's executive committee. The Corporation will be governed by a 15-member board; control will be vested in eight government members as long as 50% or more of the Corporation's outstanding indebtedness consists of USRA obligations or "other debts owing to or guaranteed by the United States."

Will the Corporation be permitted to engage in non-transportation activities?

Not until it has paid off more than half of its indebtedness to the government.

What provisions are made for employee stock ownership?

The Act specifies that the final system plan is to set forth "the manner in which employee stock ownership plans may, to the extent practicable, be utilized for meeting the capitalization requirements of the Corporation, taking into account (A) the relative cost savings compared to conventional methods of corporate finance; (B) the labor cost savings; (C) the potential for minimizing strikes and producing more harmonious relations between labor organizations and railway management; (D) the projected employee dividend incomes; (E) the impact on quality of service and prices to railway users and (F) the promotion of the objectives of this Act of creating a financially self-sustaining railway system in the region which also meets the service needs of the region and the nation."

What are the Act's principal employee-protection provisions?

A displaced employee may collect up to $2,500 a month (that figure to be adjusted to reflect subsequent general wage increases) to the age of 65 if he has had five or more years of service at the time of enactment. Lump-sum separation allowances up to a maximum of $20,000 are authorized. ■

People in the News

Woodson Knight
Family Lines

Raymond L. Bullard
Family Lines

E.D. Grinnell, Jr.
Frisco

W.F. Thompson
Frisco

J.H. Brown
Frisco

A.E. Chiasson
PFE

BURLINGTON NORTHERN.—**William C. Kanan** named director, valuation engineering, St. Paul.

Abbott Skinner, M.D. appointed chief medical officer, St. Paul, to succeed **Alexander McEwan, M.D.,** who retired Dec. 1.

CANADIAN NATIONAL.—**Gordon D. McMillan** appointed regional manager operations, Mountain Region. Mr. McMillan, formerly assistant regional manager operations, will continue to have headquarters in Edmonton, Alta.

CHICAGO & NORTH WESTERN.—**J.R. Iwinski** named assistant chief engineer-structures, Chicago. **M.C. Christensen** appointed bridge engineer, Chicago.

Walter M. Conrad, Jr., manager-commerce, named manager-rates administration, succeeding **John W. Keller,** who retired Nov. 30 after more than 45 years' service. **Howard L. Dallmeyer,** assistant rates manager, appointed rates manager-manufactured products.

H.D. Hahn named director-public works engineering, Chicago, to succeed **S.J. Owens,** who retired Dec. 1 after more than 39 years' service.

FAMILY LINES SYSTEM.—**Woodson Knight** appointed assistant vice president-public relations and advertising for this system (Seaboard Coast Line, Louisville & Nashville, Clinchfield, Georgia, West Point Route), at Louisville, Ky. **Raymond L. Bullard** named assistant vice president-public relations and advertising at Jacksonville, Fla. **John W. Walker,** appointed advertising manager, Jacksonville. Mr. Knight was formerly public relations director, L&N. Mr. Bullard was public relations representative, SCL. Mr. Walker was advertising manager, SCL.

FRISCO.—Named to newly created positions are **E.D. Grinnell, Jr.,** vice president-traffic and industrial development, who becomes senior vice president-marketing; **W.F. Thompson,** president, **Terminal Railroad Assn. of St. Louis,** who becomes senior vice president-operations, and **J.H. Brown,** vice president-operations, who becomes vice president-corporate affairs. Messrs. Grinnell and Brown will have headquarters in St. Louis and Mr. Thompson in Springfield, Mo.

The following trainmasters were named: **L.T. Ables,** Tulsa, Okla.; **L.E. Eldredge,** Oklahoma City, Okla.; **C.E. Hurt,** Fort Worth, Tex.; **E.R. Smith,** Tulsa.

Lyle D. Reed, manager transportation data systems, named director of administrative systems and procedures, Springfield, Mo.

KANSAS CITY SOUTHERN.—**L.O. Frith,** executive vice president, Kansas City, Mo., retired Dec. 31, after more than 50 years with the KCS. **M.F. McClain,** vice president-traffic, elected vice president, Executive Department, and has been succeeded by **Leo J. Tamisiea.**

MAINE CENTRAL.—**James W. Wiggins,** vice president-operations, Portland, Me., elected executive vice president. **Arnold J. Travis,** assistant to the president, elected vice president-operations.

Philip L. Moore appointed attorney, Portland. Since 1970 he has acted as a transportation attorney for the **Interstate Commerce Commission** in Washington, D.C.

John W. Dresser, marketing analyst, appointed assistant director of pricing-tariffs, Portland. **John J. McGinnis,** regional manager-sales and service, succeeds Mr. Dresser.

MILWAUKEE.—**Daniel F. Ring,** assistant general adjuster, named general attorney, Chicago.

Patrick O. Heinan appointed editor, The Milwaukee Road Magazine.

W.E. Fuhr, assistant chief engineer-maintenance, named to the newly established position of assistant chief engineer-staff. **N.E. Smith,** assistant engineer-structures, appointed chief engineer-maintenance to succeed Mr. Fuhr. **K.E. Hornung,** architect, becomes assistant chief engineer-structures, succeeding Mr. Smith. Mr. Hornung's successor is **D.A. Bessey,** assistant architect.

NORFOLK & WESTERN.—**John P. Monks,** regional traffic manager-sales, St. Louis, named assistant vice president-sales, Chicago, succeeding **Ray K. Lovitt,** who retired Nov. 1.

ONTARIO NORTHLAND.—**F.S. Clifford,** assistant general manager, North Bay, Ont., appointed general manager, succeeding **E.A. Frith. L.K. Smiley,** manager communications, appointed executive director, telecommunications, air, marine and bus operations. **W.B. Antler,** public relations officer, appointed director of public relations and special assistant to the chairman. **D.E. MacDougall** appointed executive director, financial and purchasing services. **T.G. Farmer,** executive assistant to chairman and commission secretary, appointed executive director, corporate services. **L.F. Dobberman,** passenger service manager, named special projects officer. **H.R. Graham** appointed director of finance; **W.H. Hurst,** director of purchasing; and **D. Andrews,** supervisor data processing. **S.J. Stenning** retains the title of treasurer. **G.A. Payne** named director of planning and development; **D.V. Allen,** director of personnel; **D.B. Fitzsimmons,** legal officer; **P.A. Dyment,** director of telecommunications services; **D.Wallace,** director of air and marine services; and **J.H. Singleton,** director of bus and hotel services.

K.J. Moorehead appointed chief mechanical officer, North Bay, succeeding **J.K. Wallace.**

F.J. Tayler, supervisor freight marketing, appointed manager marketing-pricing, North Bay. **T.E. Neil,** supervisor rates and divisions, named pricing officer—rail, North Bay. **R.W. Brooks,** supervisor Toronto sales, appointed manager marketing-sales, North Bay. **L.E. Howatt,** freight marketing representative, Toronto, appointed branch manager marketing, Toronto.

PACIFIC FRUIT EXPRESS.—**A.E. Chiasson,** assistant general manager, named vice president and general manager, San Francisco, to succeed **Lewis D. Schley,** retired. **E.H. Bolas** appointed superintendent, Salinas, Calif., succeeding **J.W. Zimmerman,** who replaces Mr. Chiasson.

R.F. McKee, assistant general mechanical and engineering officer, appointed general mechanical and engineering officer, San Francisco, succeeding **Earl V. Hopkins,** who retired Dec. 31, after over 44 years of service. **S.O. Littlehale** appointed assistant general mechanical and engineering officer. **D.W. Long** named general mechanical engineer and **R.C. Crist,** engineer equipment maintenance.

PENN CENTRAL.—**Thomas P. McGuinness,** special assistant-system operations, appointed director-energy conservation, operating department, Philadelphia.

SANTA FE.—**Harvey Houston** and **Gus Svolos,** general attorneys, appointed assistant general counsel, Chicago. **Leland E. Butler,** assistant general attorney, advanced to general attorney, San Francisco.

Gerald W. Washington, assistant to general superintendent of transportation, named manager of intermodal operations-transportation department, Chicago.

Stanley P. Green, assistant system power

James A. Bistline
Southern

Walter A. Dahl
Keystone

Patrick J. Cunningham
Chemetron

Richard D. Johnson
Pullman

distributor, named system power distributor, Chicago.

Harold L. Lewis, superintendent, Temple, Tex., named superintendent of transportation, Chicago.

SANTA FE INDUSTRIES.—John J. Schmidt, vice president, named executive vice president, Chicago.

SEABOARD COAST LINE.—H.L. Davis appointed manager-pricing, **R.E. Wells,** assistant manager-pricing, and **H.C. Harmon,** assistant general freight agent, Jacksonville, Fla. Mr. Wells also appointed general freight agent of the **Georgia, Atlanta & West Point** and **Western of Alabama.**

SOO LINE.—Gilbert A. Gillette, general manager of transportation, appointed assistant vice president-Transportation Group. **Lloyd L. Wasnick,** director of industrial engineering, named assistant vice president-Maintenance Group. **George W. Carr,** director of transportation operations, succeeds Mr. Gillette. Mr. Carr's successor is **Harry Peterson,** assistant to the general manager of transportation. **Milton J. Terrell** named director of safety. Mr. Terrell was formerly associated with **Ralph M. Parsons Co.,** Pine Bend, Minn. **Charles Chotkowski,** assistant trainmaster, becomes manager of rules training.

SOUTHERN.—Walter B. Brown appointed resident vice president in South Carolina. Mr. Brown has been special representative for the Southern's Department of Public Affairs.

James A. Bistline, assistant vice president and general counsel, Washington, appointed assistant to the president.

SOUTHERN PACIFIC.—Morris E. Mitchell, assistant general traffic manager, Chicago, promoted to general traffic manager. Mr. Mitchell succeeds **Robert A. Houck,** named assistant vice president-traffic, San Francisco, succeeding **Clayton E. Ward,** retired.

Godfrey J. Lyon, assistant to the chief engineer, retired.

TRANSPORTATION ASSOCIATION OF AMERICA.—Colin Barrett appointed vice president-governmental affairs, Washington, D.C. Mr. Barrett has been chief, Representation and Economics Branch, Office of Transportation and Public Utilities, **General Services Administration.**

UNION PACIFIC.—Edmond E. Leege named to the newly created position of safety engineer, Omaha. He was formerly industrial safety education director for the state of Wisconsin.

George M. Maxwell, engineer of track, eastern district, named engineer of track-system, Omaha.

TRANSIT

Thomas B. O'Connor, general manager, **Chicago Transit Authority,** retired. He will continue to serve as a consultant during a transition period in administrative reorganization. Three divisions have been established and **George Krambles** named manager of the General Operations Division; **Peter J. Meinardi,** manager of the Division of General Administration and Finance; **Milton Pikarsky,** CTA chairman, manager of the General Development Division, on an acting basis.

John G. Dillon has joined **Bechtel Incorporated,** San Francisco, as an executive engineer assigned to mass transit projects, Hydro and Community Facilities Division. His duties will include work on projects in San Francisco; Atlanta; Caracas, Venezuela; Sao Paulo, Brazil, and Singapore. Mr. Dillon was formerly director of construction operations, Office of the Assistant Secretary of Defense for Installations & Logistics, Washington, D.C.

Richard E. Hitchcock and **Richard A. Heck** have been appointed vice presidents of **Sundberg-Ferar, Inc.,** Southfield, Mich. Both are involved in the design of mass rapid transportation vehicles.

Robert W. Nelson, assistant general manager for finance and administration, **Metropolitan Atlanta Rapid Transit Authority,** has been appointed chairman, Administrative Committee, Accounting Division, **American Transit Association.** Mr. Nelson also serves as chairman, Financial Affairs Committee, **Institute for Rapid Transit,** and chairman, **Urban Mass Transportation Administration** "Fare Project" Industry Control Board.

Gerald C. Richmond has joined the **Regional Transportation District,** Denver, Colo., as manager of public information. Mr. Richmond had served as communications department manager for the Denver Chamber of Commerce since mid-1972.

SUPPLIERS

Walter A. Dahl, general sales manager, **Keystone Railway Equipment Co.,** has been elected vice president-sales.

Patrick J. Cunningham has been appointed vice president, **Railway Products Division, Gases and Related Products Group, Chemetron Corp.** He was formerly vice president of the Group's **International Division.**

Robert P. Fox, executive vice president, **American Hoist & Derrick Co.,** St. Paul, Minn., has been elected president. **John E. Carroll,** president, has been elected chairman of the board and remains chief executive officer.

Thormen A. Leines, manager of customer service, elected vice president. **James L. Montgomery,** group director of engineering, Construction Equipment & Road Machinery Group, elected vice president.

William R. Cress, executive vice president, **Ohio Brass Co.,** Mansfield, Ohio, has been named president and chief executive officer, effective Jan. 1, 1974.

Richard D. Johnson has been elected assistant vice president, public relations and advertising, **Pullman Incorporated.** Mr. Johnson was formerly director of public relations for the **Trailmobile** and **Pullman-Standard** divisions.

Walter Seth Crone, vice president and general manager, **Buffalo Brake Beam Co.,** Buffalo, N.Y., has been appointed president, succeeding **Lester A. Crone,** named chairman of the board. **Richard G. Adams** has been appointed vice president. Mr. Adams was formerly general manager, Acme Division.

William D. Harrison has been appointed manager, **Amcar Division** plant, **ACF Industries,** St. Louis. He was formerly manager of manufacturing, **Standard Railway Equipment Division, Stanray Corp.**

Welmet Industries Limited has entered into an exclusive agreement with the Railroad Products Group of **Abex Corp.,** New York, to manufacture freight car roller bearing adapters under license at its Welland, Ont., Canada, plant.

Stephen R. Kelleher has been appointed vice president-marketing, **Howe Richardson Scale Co.,** Clifton, N.J. Mr. Kelleher was formerly vice president-marketing, Amphenol Connector Division, **Bunker Ramo,** Chicago.

Ned M. Cole, Jr., supervising engineer, computer applications, **Union Switch & Signal Division, WABCO,** has been appointed product manager, computer systems, Swissvale, Pa.

Jack R. Kruizenga, senior vice president of marketing and fleet operations, Tank Car Division of **Trans Union Corp.,** Chicago, has been named president of the division, succeeding **Robert D. McEvers,** who has resigned to return to the First National Bank of Chicago in an executive capacity after 12 years with Trans Union.

Frank McVay has been appointed western regional manager, **Intermodal Transportation Systems** and its wholly-owned subsidiaries, ATC Leasing Corp. and Continental Leasing Corp., with headquarters at Los Angeles, Calif. Mr. McVay has held management positions with Transport Pool and SSI Trailer Corp.

Third Quarter Figures of Calendar Year 1973

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

Name of Road		Operating Revenues				Operating Expenses										Operating ratio		Railway tax accruals	Railway operating income		Net income	
						Maint. of Roadway and Structures			Maint. of Equipment													
		Freight	Other	Total 1973	Total 1972	Total 1973	Total 1972	Deprec. and Retirements	Total 1973	Total 1972	Deprec. and Retirements	Traffic	Transportation	Total 1973	Total 1972	1973	1972		1973	1972	1973	1972
Akron, Canton &	3 mos.	2,156	65	2,221	1,995	287	309	18	385	385	119	72	953	1,853	1,744	83.4	87.4	279	89	14	82	(5)
Youngstown	9 mos	6,538	193	6,731	5,612	844	943	54	1,097	1,115	359	237	2,812	5,537	5,026	82.3	89.6	747	446	(108)	739	52
Amtrak	3 mos.	—	61,691	61,691	48,084	1,085	1,193	80	18,171	12,973	1,469	8,143	42,202	87,537	64,778	141.9	134.7	5,752	(31,598)	(20,828)	(34,859)	(22,452)
	9 mos.	—	150,847	150,847	122,514	3,504	3,868	126	49,685	45,791	3,682	19,544	117,239	241,316	211,268	160.0	172.4	16,312	(106,780)	(101,569)	(113,743)	(106,999)
Ann Arbor	3 mos.	2,487	136	2,623	2,774	344	395	23	589	700	151	39	1,280	2,416	2,605	92.1	93.9	219	(12)	(35)	(601)	(473)
	9 mos.	8,046	242	8,289	8,310	1,280	1,108	84	1,839	1,866	473	117	3,996	7,695	7,753	92.8	93.3	655	(61)	(66)	(1,721)	(1,484)
Atchison, Topeka &	3 mos.	226,976	11,820	238,796	213,440	37,531	34,644	2,762	44,152	39,466	11,393	5,049	91,704	188,637	160,992	79.00	75.43	21,622	28,537	31,092	21,753	24,242
Santa Fe	9 mos.	659,363	31,874	691,237	612,933	108,078	98,053	9,259	132,147	121,853	33,467	15,932	266,788	554,503	477,609	80.22	77.92	61,657	75,076	76,836	60,569	58,250
Auto Train	3 mos.	—	4,784	4,784	3,193	148	345	28	629	383	82	266	1,326	3,390	2,443	70.9	76.5	316	1,078	635	215	211
	9 mos.	—	12,641	12,641	8,863	752	1,047	83	1,552	1,155	215	873	3,396	9,514	7,900	75.2	89.1	750	2,376	555	669	(1,631)
Baltimore & Ohio	3 mos.	130,280	6,682	136,962	124,154	18,704	16,700	1,843	18,300	16,880	2,854	2,935	55,333	100,183	89,832	73.1	72.3	10,231	26,547	25,983	4,588	4,273
	9 mos.	394,268	15,609	409,877	368,504	51,547	49,600	5,464	55,848	50,205	8,559	8,900	155,910	297,607	270,333	72.6	73.4	29,736	82,534	71,366	25,352	11,896
Bangor & Aroostook	3 mos.	3,078	174	3,252	2,806	906	789	91	1,318	1,333	456	96	1,164	3,731	3,453	114.7	123.1	431	(910)	(697)	(38)	3
	9 mos.	9,929	596	10,515	10,139	2,837	2,750	266	3,918	3,884	1,392	267	3,747	11,521	10,957	109.6	108.1	1,119	(2,125)	(1,787)	477	1,304
Bessemer & Lake	3 mos.	13,696	879	14,576	12,574	2,262	2,512	155	2,590	2,627	417	170	3,791	9,888	9,442	67.8	75.1	2,730	1,958	1,371	1,929	1,560
Erie	9 mos.	35,617	2,746	38,363	34,313	5,304	6,130	462	7,316	8,915	1,640	502	10,139	26,516	27,529	69.4	80.2	7,594	4,153	2,827	4,400	2,838
Boston & Maine	3 mos.	16,166	3,577	19,743	18,225	3,082	3,078	423	3,091	3,074	592	394	9,336	17,037	16,824	86.3	92.3	1,606	1,101	(201)	(2,091)	(3,069)
	9 mos.	50,179	10,580	60,758	57,470	10,612	10,545	1,279	9,790	9,709	1,822	1,150	28,685	53,784	51,539	88.5	89.7	4,823	2,152	1,175	(7,264)	(6,858)
Burlington Northern	3 mos.	260,038	12,601	272,640	252,504	55,658	44,408	6,454	45,971	43,836	11,050	6,474	114,852	238,132	211,903	87.3	83.9	26,986	7,521	17,217	2,774	6,306
	9 mos.	762,897	34,799	797,697	735,349	136,592	118,925	15,452	137,575	131,139	32,885	20,261	338,049	679,319	611,502	85.2	83.2	73,522	44,856	57,855	14,452	23,295
CPR Lines in Maine	3 mos.	1,620	90	1,710	2,291	586	556	67	330	296	47	63	896	2,006	1,773	117.3	77.4	113	(410)	415	—	—
	9 mos.	6,717	251	6,968	6,898	1,433	1,467	201	1,361	1,259	141	186	2,815	6,190	5,704	88.8	82.7	332	446	902	—	—
Central RR of	3 mos.	6,948	3,776	10,723	9,639	1,087	1,230	202	1,483	1,771	220	163	5,139	8,766	9,251	81.7	96.0	974	983	(615)	(677)	(2,307)
New Jersey	9 mos.	21,289	10,973	32,263	31,596	3,190	4,048	717	4,522	5,892	678	503	15,616	26,482	30,245	82.1	95.9	2,989	2,790	(1,768)	(2,047)	(7,465)
Central Vermont	3 mos.	1,904	155	2,059	2,534	651	597	64	259	143	16	36	1,177	2,234	1,929	(8.5)	76.1	244	(420)	396	(531)	173
	9 mos.	6,655	366	7,021	7,487	1,667	1,613	88	854	560	48	93	3,545	6,466	5,629	92.0	75.1	708	(153)	1,259	(183)	736
Chesapeake & Ohio	3 mos.	111,595	6,901	118,496	107,215	14,700	12,600	1,516	20,693	19,877	6,234	2,531	45,993	91,365	83,980	77.1	78.3	12,476	14,655	13,329	9,787	8,903
	9 mos.	344,569	15,942	360,511	337,349	41,616	42,600	4,516	64,565	60,037	18,657	7,516	142,272	280,008	258,659	77.7	76.7	37,529	42,974	47,041	27,698	28,881
Chicago & Eastern	3 mos.	10,534	186	10,720	9,443	2,090	1,961	76	1,885	1,727	497	269	3,479	8,196	7,291	76.46	77.21	1,027	1,496	1,404	776	384
Illinois	9 mos.	32,371	500	32,871	29,588	5,939	5,984	358	5,481	5,406	1,354	840	10,280	23,930	22,850	72.80	77.23	2,950	5,990	4,385	3,872	1,439
Chicago & North	3 mos.	93,771	10,800	104,571	91,488	13,534	12,168	(171)	17,490	12,827	3,192	2,315	43,651	82,161	70,194	78.6	76.7	7,845	14,565	14,363	3,726	3,286
Western	9 mos.	275,523	31,870	307,393	121,148	35,149	16,666	(310)	49,329	17,056	9,454	7,260	128,336	236,359	93,670	76.9	77.3	23,112	47,921	18,167	15,350	3,673
Chicago, Milwaukee	3 mos.	81,222	6,847	88,069	77,718	15,712	15,375	1,305	12,359	12,708	2,605	2,376	37,241	72,759	67,661	82.6	87.1	7,251	8,059	3,234	(1,423)	(4,524)
St. Paul & Pacific	9 mos.	245,035	18,745	263,780	230,214	44,234	41,808	5,739	36,683	39,072	7,838	7,366	108,866	211,907	197,083	80.3	85.6	21,647	30,226	13,068	2,040	(8,987)
Chicago, Rock Island	3 mos.	75,547	5,121	80,668	77,151	11,221	10,664	1,160	13,910	13,177	1,545	2,053	35,935	66,932	60,383	83.0	78.3	5,891	7,845	11,540	(6,154)	431
& Pacific	9 mos.	229,829	14,425	244,254	228,157	31,898	32,669	3,852	42,465	40,909	4,704	6,304	108,251	200,523	183,593	82.1	80.5	18,082	25,648	28,541	(14,424)	(4,549)
Clinchfield	3 mos.	9,564	149	9,713	10,381	1,127	1,192	87	1,717	1,662	637	291	2,739	6,262	6,431	64.5	61.9	894	2,556	3,113	—	—
	9 mos.	29,458	364	29,823	30,653	3,225	3,349	256	5,117	5,120	1,932	885	8,373	18,693	18,736	62.7	61.1	2,719	8,411	9,445	—	—
Colorado & Southern	3 mos.	7,402	328	7,730	6,860	1,140	816	122	1,054	968	474	35	3,199	5,892	4,868	76.2	71.0	747	1,091	1,652	891	1,025
	9 mos.	22,164	820	22,984	19,906	3,125	2,047	205	3,514	2,909	1,425	81	9,333	17,358	13,253	75.5	66.6	1,930	3,696	5,293	1,664	3,316
Delaware & Hudson	3 mos.	10,307	317	10,624	10,122	1,614	1,054	118	2,105	2,021	392	342	4,179	8,989	7,939	84.6	78.4	1,185	450	678	844	99
	9 mos.	32,229	839	33,068	30,856	4,296	3,689	326	6,575	6,575	1,174	1,003	12,494	26,502	25,324	80.1	82.1	4,163	2,403	1,002	2,983	(1,894)
Denver & Rio Grande	3 mos.	28,620	1,183	29,803	28,793	4,378	3,273	489	5,054	4,369	1,630	1,019	10,259	22,498	19,557	75.5	67.9	3,766	3,538	4,647	4,105	4,302
Western	9 mos.	84,667	2,335	87,002	82,828	12,521	9,711	1,326	14,728	12,884	4,857	3,090	29,358	64,895	56,671	74.6	68.4	11,009	11,098	12,991	11,555	12,562

Third Quarter Figures of Calendar Year 1973

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

Name of Road		Operating Revenues				Operating Expenses							Traffic	Transportation	Total 1973	Total 1972	Operating ratio		Railway tax accruals	Railway operating income		Net income	
						Maint. of Roadway and Structures			Maint. of Equipment														
		Freight	Other	Total 1973	Total 1972	Total 1973	Total 1972	Deprec. and Retirements	Total 1973	Total 1972	Deprec. and Retirements						1973	1972		1973	1972	1973	1972
Detroit and Toledo	3 mos.	2,150	148	2,298	1,994	236	208	19	360	326	110	77	699	1,546	1,376	67.3	69.0	406	346	308	320	220
Shore Line	9 mos.	6,446	433	6,879	6,123	741	649	67	1,086	994	342	226	2,105	4,633	4,187	67.4	68.4	1,187	1,059	949	736	568
Detroit, Toledo &	3 mos.	9,086	790	9,876	9,741	1,417	1,091	89	2,378	1,723	428	310	4,321	9,227	7,459	93.4	76.6	861	(211)	(1,501)	(1,487)	393
Ironton	9 mos.	31,690	1,974	33,664	30,544	3,967	3,087	268	6,622	5,372	1,287	932	13,280	27,137	22,531	80.6	73.8	2,610	3,916	5,774	555	2,404
Duluth, Missabe &	3 mos.	20,088	1,841	21,929	18,703	2,369	1,867	373	1,801	1,760	572	78	4,529	10,204	8,756	46.5	46.8	6,981	4,744	3,858	5,528	4,201
Iron Range	9 mos.	42,927	3,545	46,472	36,659	5,835	5,239	809	5,754	5,299	1,708	224	11,641	27,396	23,656	59.0	64.5	12,650	6,426	3,995	8,594	5,077
Duluth, Winnipeg	3 mos.	2,557	27	2,584	2,952	537	745	17	425	300	2,475	74	1,166	2,284	2,283	88.4	77.3	311	(11)	361	82	232
& Pacific	9 mos.	10,542	108	10,650	9,713	1,371	1,560	50	1,164	906	7,521	260	3,704	6,774	6,117	63.3	63.0	1,024	2,881	2,677	2,711	2,045
Elgin, Joliet &	3 mos.	13,412	8,991	22,402	17,464	2,093	1,944	161	2,561	2,994	534	270	7,766	15,094	13,866	67.4	79.4	4,024	3,285	1,255	2,624	1,068
Eastern	9 mos.	41,243	24,407	65,651	53,139	6,031	5,259	435	8,141	8,401	1,592	793	23,688	45,503	40,041	69.3	75.3	11,256	8,892	5,490	6,492	4,490
Erie Lackawanna	3 mos.	61,038	—	69,440	63,115	10,172	7,216	782	12,124	11,451	1,846	1,440	34,093	61,408	54,394	88.4	86.2	6,265	1,767	3,059	(8,092)	(5,959)
	9 mos.	190,021	—	214,050	194,415	26,785	21,494	2,362	36,446	33,815	5,573	4,271	100,344	178,829	167,487	83.5	86.1	18,349	16,872	11,573	(12,376)	(21,570)
Florida East Coast	3 mos.	9,735	631	10,366	8,422	2,216	1,569	195	1,157	830	315	259	2,542	6,786	5,171	65.5	61.4	1,477	2,102	1,709	807	981
	9 mos.	32,876	1,448	34,324	27,587	7,846	7,014	593	3,116	2,703	953	761	7,458	20,818	18,106	60.7	65.6	5,039	8,467	5,924	5,577	3,140
Fort Worth &	3 mos.	9,069	433	9,502	5,273	1,498	940	83	663	857	118	65	4,020	6,762	5,010	71.2	95.0	515	2,225	(131)	543	(1,227)
Denver	9 mos.	26,118	1,514	27,631	17,487	3,595	2,790	213	2,126	2,364	345	214	12,518	19,839	14,581	71.8	83.4	1,458	6,335	1,765	774	(1,526)
Georgia	3 mos.	2,849	101	2,950	2,796	738	390	360	490	455	109	111	1,444	2,929	2,239	99.3	80.1	193	(172)	399	—	—
	9 mos.	7,875	—	8,253	8,394	1,518	1,164	427	1,350	1,283	310	341	3,726	7,380	6,516	89.4	77.6	556	318	1,408	—	—
Grand Trunk	3 mos.	23,306	1,178	24,484	19,524	3,380	3,482	367	3,333	3,309	133	521	12,295	21,333	19,581	87.1	100.3	2,392	759	(2,235)	(3,989)	(6,342)
Western	9 mos.	77,146	3,413	80,559	65,920	10,520	9,095	858	10,837	9,927	411	1,502	37,647	65,928	58,472	81.8	88.7	7,162	7,469	1,046	(5,732)	(10,988)
Green Bay &	3 mos.	2,084	137	2,221	2,000	533	440	24	319	273	54	145	804	1,966	1,709	88.53	85.41	149	106	106	4	59
Western	9 mos.	6,165	329	6,494	5,804	1,093	982	69	860	872	156	439	2,317	5,232	4,858	80.56	83.70	643	619	461	248	(11)
Illinois Central	3 mos.	120,897	8,691	129,638	115,454	19,180	17,678	1,902	22,418	20,455	5,464	2,891	49,743	102,622	94,463	79.2	81.8	11,971	15,045	10,433	5,807	3,046
Gulf	9 mos.	365,720	24,692	390,412	361,726	54,585	56,087	5,669	64,960	65,154	16,220	8,938	147,743	300,095	285,687	76.9	79.0	37,473	52,843	43,109	26,908	20,791
Illinois Terminal	3 mos.	3,066	498	3,564	3,035	665	370	13	534	440	150	119	1,420	3,027	2,313	84.9	76.2	279	258	487	(77)	147
	9 mos.	9,562	1,390	10,952	9,210	1,563	1,185	25	1,545	1,348	396	335	4,185	8,472	7,052	77.4	76.6	793	1,687	1,496	730	620
Kansas City	3 mos.	29,585	1,559	31,144	26,490	4,777	4,837	222	5,353	4,555	1,261	974	11,454	24,001	20,467	77.1	77.3	1,586	3,557	3,762	332	1,623
Southern	9 mos.	85,087	4,955	90,042	78,923	12,551	11,994	759	14,407	12,631	3,658	2,983	33,629	67,845	57,358	75.3	72.7	5,209	16,988	14,622	1,131	5,746
Lake Superior &	3 mos.	1,460	621	2,081	2,092	303	272	77	423	439	184	8	717	1,608	1,471	77.2	70.3	365	109	441	218	499
Ishpeming	9 mos.	3,062	1,638	4,700	3,787	870	806	223	1,160	1,252	550	24	1,643	4,090	3,900	87.0	103.0	714	(104)	(616)	184	(311)
Lehigh Valley	3 mos.	13,913	400	14,312	12,964	1,796	1,341	237	2,688	2,770	271	316	6,316	12,228	11,473	85.4	88.5	1,272	812	354	220	(4,941)
	9 mos.	41,739	1,382	43,121	36,885	5,729	5,464	673	8,563	8,071	940	1,326	19,476	38,342	34,707	88.9	94.1	3,784	994	(1,077)	(5,492)	(11,344)
Long Island	3 mos.	2,155	23,060	25,214	26,098	6,036	4,898	588	7,738	8,211	238	181	20,736	40,220	36,606	159.5	140.0	2,398	(17,403)	(12,364)	(19,881)	(14,728)
	9 mos.	6,109	61,363	67,472	77,220	16,008	14,685	1,662	22,462	24,500	3,878	515	55,657	110,278	108,628	163.4	140.6	6,357	(49,163)	(36,915)	(53,468)	(43,482)
Louisville &	3 mos.	122,377	3,650	126,026	114,275	16,058	15,397	1,856	23,396	22,976	4,565	2,490	47,531	95,727	89,336	76.0	78.2	11,734	18,565	15,991	9,363	8,179
Nashville	9 mos.	356,793	10,761	367,554	340,074	48,262	45,957	7,788	68,311	68,104	23,214	7,480	140,964	282,598	265,909	76.9	78.2	30,292	54,664	49,399	20,192	20,613
Maine Central	3 mos.	7,073	262	7,334	6,990	1,721	1,616	92	1,498	1,522	297	122	2,583	6,364	6,207	86.8	88.8	613	357	214	434	(150)
	9 mos.	21,820	551	22,372	21,102	4,790	4,813	280	4,610	4,669	876	376	8,058	19,225	18,858	85.9	89.4	1,776	1,370	610	1,041	(138)
Missouri-Illinois	3 mos.	1,483	37	1,520	1,812	244	528	9	776	674	428	58	409	1,583	1,755	114.2	96.8	284	(347)	(340)	616	484
	9 mos.	5,115	83	5,198	5,737	728	1,015	36	2,337	2,170	1,228	167	1,274	4,783	4,845	92.0	84.4	1,111	(695)	(656)	2,114	1,833
Missouri-Kansas-	3 mos.	20,445	1,275	21,721	18,976	3,601	2,308	267	2,772	2,276	336	947	9,035	17,322	13,732	79.7	72.4	1,648	2,751	3,781	(2,283)	(311)
Texas	9 mos.	63,130	3,395	66,525	58,853	9,078	8,083	802	8,841	7,492	988	2,886	26,692	50,388	43,762	75.7	74.4	4,882	11,256	10,688	(7,947)	(1,533)
Missouri Pacific	3 mos.	128,383	5,474	133,857	111,832	18,026	17,410	1,326	20,820	19,463	4,354	2,714	51,557	98,063	85,161	73.3	76.2	9,907	25,887	19,334	5,859	4,319
	9 mos.	372,366	15,522	387,889	333,329	53,149	53,380	4,492	62,329	58,413	13,047	8,093	148,786	287,516	253,571	74.1	76.1	27,758	72,615	57,728	15,903	11,902

Third Quarter Figures of Calendar Year 1973

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

Name of Road		Operating Revenues: Freight	Other	Total 1973	Total 1972	Operating Expenses: Maint. of Roadway and Structures: Total 1973	Total 1972	Deprec. and Retirements	Maint. of Equipment: Total 1973	Total 1972	Deprec. and Retirements	Traffic	Transportation	Total 1973	Total 1972	Operating ratio: 1973	1972	Railway tax accruals	Railway operating income: 1973	1972	Net income: 1973	1972
Monongahela	3 mos.	2,125	16	2,141	1,400	396	571	(65)	226	432	20	3	432	1,121	1,506	52.3	107.5	145	875	(244)	837	(1,000)
	9 mos.	5,522	69	5,591	6,602	1,300	1,536	33	737	889	60	11	1,405	3,602	4,021	64.4	60.9	374	1,615	2,216	128	(41)
Norfolk & Western	3 mos.	194,922	8,506	203,428	191,094	27,418	25,433	2,922	36,619	34,688	13,192	4,355	73,678	152,254	142,124	74.8	74.4	17,053	34,121	32,696	17,679	15,686
	9 mos.	599,095	24,891	623,986	592,306	74,906	67,722	8,726	112,634	106,034	39,724	13,021	224,406	456,632	422,191	73.2	71.3	56,530	110,824	115,551	61,099	6,485
Norfolk Southern	3 mos.	3,734	94	3,828	3,611	793	683	80	666	574	183	138	1,430	3,358	3,039	87.7	84.1	309	160	292	(121)	(36)
	9 mos.	11,553	299	11,852	11,399	2,494	2,269	245	2,003	1,791	539	431	4,416	10,341	9,556	87.2	83.8	930	581	1,003	(274)	(71)
Northwestern Pacific	3 mos.	3,188	20	3,208	3,456	816	848	66	366	176	2	27	1,133	2,454	2,236	76.5	64.7	169	585	784	187	501
	9 mos.	9,435	56	9,491	10,596	2,612	2,648	189	903	312	6	78	3,230	7,177	6,485	75.6	61.2	874	1,439	2,943	508	1,922
Oregon Electric	3 mos.	1,752	132	1,884	1,653	265	226	25	39	49	—	9	763	1,136	1,073	60.3	64.9	215	532	423	117	28
	9 mos.	4,776	271	5,047	5,146	635	670	87	134	137	—	25	2,305	3,227	3,131	63.9	60.8	528	1,292	1,366	266	349
Penn Central	3 mos.	405,338	66,599	471,838	443,928	63,990	61,846	7,717	77,460	76,520	12,589	5,189	222,613	391,529	372,194	88.0	83.8	37,359	42,949	37,213	—	(51,167)
	9 mos.	1,254,586	189,776	1,444,362	1,348,814	190,370	186,062	22,495	241,151	248,754	39,616	15,262	681,665	1,198,419	1,144,103	83.0	84.8	118,349	127,595	98,689	(131,384)	(175,994)
Penn-Reading Seashore Lines	3 mos.	2,003	387	2,390	2,435	586	493	68	322	349	29	12	1,794	2,866	2,732	119.9	112.2	210	(686)	(488)	(1,443)	(1,256)
	9 mos.	6,227	1,115	7,343	6,728	1,872	1,563	278	1,018	1,002	88	40	5,243	8,577	7,968	116.8	118.4	634	(1,868)	(1,790)	(4,002)	(3,863)
Pittsburgh & Lake Erie	3 mos.	9,909	882	10,791	9,923	1,633	1,534	151	3,637	3,734	1,633	205	4,252	10,547	9,932	97.7	100.1	2,630	(2,384)	(806)	2,658	2,379
	9 mos.	28,927	2,643	31,569	28,120	4,977	4,292	413	12,454	12,235	4,939	612	12,444	32,979	30,495	104.5	108.4	6,046	(7,457)	(4,871)	7,389	6,210
Reading	3 mos.	25,552	6,380	30,931	27,833	4,540	4,197	684	5,488	5,413	1,167	715	14,180	26,825	25,349	86.7	91.1	3,102	1,004	(317)	2,829	4,074
	9 mos.	74,928	17,936	92,864	81,973	13,647	13,283	1,907	17,290	16,715	3,550	2,173	43,169	82,200	77,441	88.5	94.5	9,183	1,480	(3,616)	(10,478)	(17,152)
Richmond, Fredericksburg & Potomac	3 mos.	6,354	474	6,828	5,854	790	752	116	888	782	272	117	1,738	3,928	3,440	57.5	58.8	1,834	1,066	1,212	1,847	4,593
	9 mos.	19,480	1,506	20,987	18,624	2,501	2,308	343	2,719	2,372	791	356	5,113	11,938	10,481	56.9	56.3	5,591	3,459	3,995	5,338	8,159
St. Louis-San Francisco	3 mos.	59,545	3,428	62,973	55,581	9,693	8,613	876	8,866	8,957	2,515	1,916	25,563	49,097	43,834	78.0	78.9	5,055	8,820	7,602	1,620	2,096
	9 mos.	180,080	8,602	188,682	169,985	28,325	26,119	2,320	28,338	26,953	7,584	5,783	76,026	147,746	131,358	78.3	77.3	14,818	26,117	25,467	6,671	10,364
St. Louis Southwestern	3 mos.	37,749	439	38,188	35,105	4,363	4,577	298	8,554	8,539	3,661	970	15,568	30,449	28,096	79.7	80.0	3,346	4,392	3,625	8,035	5,660
	9 mos.	118 985	1,401	120,386	113,248	14,048	13,890	877	27,595	26,016	10,466	2,895	44,768	92,225	84,442	76.6	74.6	10,290	17,870	17,560	26,416	23,365
Seaboard Coast Line	3 mos.	137,041	6,468	143,509	134,151	20,793	20,172	1,637	28,644	25,568	6,849	3,199	57,411	116,103	103,680	80.9	77.3	10,092	17,314	19,889	1,221	7,932
	9 mos.	435,132	17,204	452,336	417,666	64,163	61,694	4,743	84,581	74,594	20,215	9,566	174,058	350,105	309,963	77.4	74.2	34,069	68,162	72,657	23,886	36,275
Soo Line	3 mos.	38,829	1,466	40,295	34,840	7,614	7,103	357	4,854	4,425	1,068	956	14,204	29,209	26,420	72.5	75.8	3,812	7,275	5,099	3,547	1,792
	9 mos.	119,568	3,414	122,982	102,069	19,711	17,375	1,094	15,050	13,430	3,196	2,939	42,642	84,878	74,973	69.0	73.5	13,022	25,082	17,040	13,502	7,242
Southern Railway	3 mos.	177,175	8,544	185,719	171,856	32,037	28,813	4,013	34,329	31,980	11,448	3,594	60,657	139,428	125,953	75.1	73.3	12,033	34,258	32,654	20,394	18,634
	9 mos.	553,550	22,218	575,768	539,305	95,420	88,489	11,639	99,440	94,591	34,259	10,958	178,214	410,695	385,506	71.3	69.6	49,669	115,405	111,087	73,020	64,663
Southern Pacific	3 mos.	287,051	8,481	295,532	272,996	36,562	37,456	2,928	54,135	48,973	15,292	4,731	120,836	233,853	213,098	79.1	78.1	26,278	35,400	35,717	9,410	15,134
	9 mos.	852,212	23,718	875,930	828,772	110,219	112,747	9,114	164,274	155,598	46,334	14,009	350,530	691,568	610,845	79.0	77.3	76,342	108,019	116,962	43,976	61,534
Texas & Pacific	3 mos.	31,240	964	32,204	25,492	5,190	4,035	349	5,985	5,103	1,447	1,063	13,918	27,350	21,595	84.9	84.7	2,461	2,392	2,502	2,606	1,114
	9 mos.	92,121	2,857	94,978	79,358	13,862	12,381	1,039	16,979	15,332	4,399	3,062	39,395	76,771	64,747	80.8	81.6	7,028	11,179	9,700	8,679	—
Texas Mexican	3 mos.	1,693	266	1,959	1,644	312	298	16	183	156	44	89	612	1,338	1,221	68.3	74.3	279	341	184	(83)	99
	9 mos.	5,137	610	5,747	4,613	1,222	1,031	49	528	451	132	248	1,756	4,082	3,505	71.0	76.00	779	887	533	79	179
Toledo, Peoria & Western	3 mos.	2,999	168	3,167	2,804	548	428	21	279	280	68	242	1,030	2,339	2,176	73.9	77.6	267	560	399	118	76
	9 mos.	8,974	443	9,417	8,610	1,352	1,169	57	860	838	203	723	3,307	6,964	6,423	74.0	74.6	866	1,586	1,377	488	479
Union Pacific	3 mos.	209,551	6,367	215,917	194,266	27,839	24,659	2,063	39,172	35,444	14,706	4,896	14,683	161,535	141,171	74.8	72.7	20,753	33,629	35,378	30,233	29,406
	9 mos.	615,392	19,354	634,756	565,280	81,999	71,840	6,934	115,001	108,043	43,143	78,425	226,979	473,758	417,265	74.6	73.8	65,183	95,815	96,094	86,330	80,077
Western Maryland	3 mos.	12,542	895	13,438	12,031	1,203	1,514	202	2,456	2,583	871	407	—	10,083	10,144	75.0	84.3	1,445	909	844	1,513	145
	9 mos.	37,279	2,795	40,073	36,280	4,951	5,488	608	7,763	8,196	2,620	1,279	15,952	32,488	31,897	81.1	87.9	3,493	4,092	1,824	2,052	(383)
Western Pacific	3 mos.	22,661	393	23,054	22,839	3,588	3,304	317	3,386	3,979	832	948	9,302	19,022	18,888	82.5	82.7	1,714	2,318	2,337	1,409	873
	9 mos.	65,889	1,052	66,941	64,732	9,988	9,569	1,043	10,563	11,283	2,511	2,838	26,857	55,617	53,482	83.1	82.6	5,133	6,191	6,504	3,841	2,694

New Products Report

Plastic tie plate is for siding, industrial trackage

A railroad tie plate made of high-density polyethylene has been developed by Koppers Co. The plastic tie plate, designed exclusively for railroad sidings and industrial yards, weighs less than a pound. It can accommodate rail base widths from 4 3/8 in. to 5½ in. The tie plate is injection molded from Sinclair-Koppers Co. Super Dylan polyethylene, which is resistant to corrosion and weathering. Despite its light weight, which facilitates handling and installation of the plate, Super Dylan has a 3,500-psi tensile yield strength.

To determine the feasibility of polyethylene tie plates, extensive tests were conducted on a tie wear machine designed by the AAR. The tests simulated 20,000-lb loadings on the outer rail of a sharp curve. The plastic tie plates performed successfully in tests of up to 4.2 million cycles at temperatures ranging from -40 deg. F. to 165 deg. F. After laboratory testing, polyethylene plates were installed on track owned by several major railroads in various parts of the country. After nearly four years of field service, the suitability of the plates for use on siding and industrial trackage has been confirmed.

Circle 60 on reader service card

Channel equipment produces supergroups at less cost

The 46A3 channel equipment for direct-to-line or directly formed supergroup application has been added to GTE Lenkurt's 46A3 multiplex equipment. By far the most important use of the new equipment is the ability to produce standard 60-channel supergroups in the frequency range between 312 kHz and 552 kHz without the cost, complexity and bulk of group equipment and group carrier supply equipment. Ten directly formed supergroups can be applied to a 46A3 supergroup bank to obtain a 600-channel multiplex system or basic mastergroup that is substantially lower in cost than conventionally modulated systems.

The direct-to-line arrangement, specially adapted for low-density applications, provides up to 132 VF channels between 12 kHz and 552 kHz. Each 4-kHz VF channel is modulated with one of 12 channel carrier frequencies to produce an 8-MHz primary group. The primary group is then modulated with one of 11 8-MHz carriers to produce a 12-channel group in group A, supergroup 1 or supergroup 2 portion of the frequency spectrum.

The new equipment is end-to-end compatible with GTE Lenkurt 46A, Western Electric "L" and CCITT systems. It can be used along with, or to expand, conventionally modulated channel equipment.

Circle 61 on reader service card

Shuttle Wagon attachment turns it into a snow plow

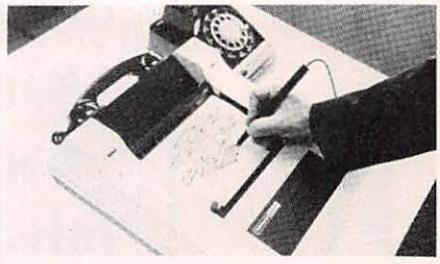
An optional, heavy-duty, 9-foot-wide snow blade turns Isco Manufacturing Co.'s Shuttle Wagon into a snow plow. The blade weighs 820 pounds. It has a high-tensile mold-board reinforced with heavy-duty angle iron. The design provides a constant snow rolling action. Easy-to-operate finger-tip controls are conveniently placed inside the Wagon's 360-degree-visibility cab. The Shuttle Wagon—with road-to-rail conversion wheels—pushes or pulls 1,300 tons of rail cars, spots 40,000-pound semi-trailers with an optional fifth wheel. Other equipment options include an 8-foot-wide rotary broom, a 6,000-pound-capacity jib crane and a 15,000-pound-capacity winch.

Circle 62 on reader service card

CRT display terminals feature a new, molded-case design

A new series of complete CRT display terminals called Design III has been announced by Ann Arbor Terminals. The series, a complete departure from past configurations, features a molded-case design which contains (in addition to a 14-in. CRT monitor), building block circuit cards which are directly interchangeable with the firm's present Series 200 modular display controllers and keyboards. Operating speeds to 9600 baud asynchronous are standard. Design III is available with serial or parallel data interface in 16 standard RO, KSR and ASR models, including character or cursor addressable loading and burst loading types. The display set consists of 64 upper case or 96 upper-lower case characters, with display formats up to 40 lines by 80 characters. A built-in MOS dynamic shift register stores the full screen of data.

Circle 63 on reader service card



"Writing telephone" gives fast handwritten transmission

A portable telephone that writes has been designed for instant, handwritten transmission of rolling stock priority allocations, maintenance dispatching, switching instruction, data processing input and other railroad communications. Introduced by Telautograph Corp., the device—called Telepen—expands the utility of telephone communications by allowing the user to write, as well as talk, over standard telephones. Telepen instantaneously reproduces handwritten drawings, diagrams and authorizations at any location equipped with a similar unit.

Telepen is simply plugged into an electric outlet; the person being called is dialed on a telephone; the handset is placed in back of the Telepen and the message is written on the Telepen form. The message appears instantly on the unit dialed, exactly as written. Telepen sends up to 340 pages of graphics before refilling is required. It weighs 19 lb, and is 12.3 in. wide, 16.4 in. long.

Circle 64 on reader service card

Barry Commoner on nationalization

(Continued from page 33)

as that is the maximally efficient way to use fuel.

My understanding of the situation at this point is that it is much more likely that we could build up the railroads in a way that would maximize efficiency by nationalizing them than it would be by continuing to operate them under private enterprise.

RA: Do you find it worrisome, considering your distrust of the profit motive, that the principal agitation for turning Penn Central over to the Federal government lock, stock, and deficits, came from large holders of PC securities?

COMMONER: I can understand that there's a very serious problem of meeting the equity requirements of stockholders.

Obviously, what I'm talking about is the need for accepting a rate of return on the railroads which is below the bank interest. Now the minute any rate of return falls below the bank interest rate, no one will invest in it, and it then becomes a public charge, so to speak.

Incidentally, one of the principles of ecology that I mentioned in my book is that we have to understand that different productive processes have different natural rates of return. And it looks to me as though the railroad is one of those things which is marvelously useful to society, but is simply so designed that you can't really get a good rate of return.

Well, what the private entrepreneur says is "I'll put my money in the pipeline"; that's what the railroads have done: it's called diversification. I think that's idiotic. It raises a basic question about the motivation for various productive enterprises. And I think that one of the major issues of the day is for us to find ways of making decisions on productive enterprises on grounds of social benefit. I think that in the fairly short run it would pay for the government, the taxpayer, to buy out all the stock in the railroads.

RA: Do you think they'd be willing to? It's said that the cost of takeover, plus the amount necessary to eliminate deferred maintenance, would be some $100 billion.

COMMONER: I think it would be a bargain. Paying $10 billion for the next ten years? Cheap. How much do we spend on defense each year?

If you put it to me as a voter, say, to buy the railroads, and pay $10 billion a year over the next ten years, I'd vote for it in a minute. ■

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Market Outlook

CARLOADINGS

Loadings of revenue freight in the week ended Dec. 22, 1973, totaled 492,493 cars, according to the Association of American Railroads. This was a decrease of 50,388 cars, or 9.3%, compared with the previous week, and an increase of 6,761 cars, or 1.4%, compared with the corresponding week of 1972. Ton-miles generated by carloadings in the week ended Dec. 22 are estimated at 15.4 billion, an increase of 4.7% above the corresponding week of 1972. 1972.

REVENUE FREIGHT CARLOADINGS

Commodity	Dec. 22 week	Dec. 15 week
Grain	30,200	32,911
Farm products	15,548	17,914
Metallic ores	29,185	32,837
Coal	83,890	93,221
Crushed stone, gravel & sand	21,251	24,908
Nonmetallic minerals	13,601	14,638
Grain mill products	21,343	21,880
Food and kindred products	23,172	23,796
Primary forest products	22,423	24,814
Lumber & wood products (except furniture)	15,929	16,086
Pulp, paper & allied products	23,121	22,958
Chemicals & allied products	27,531	28,169
Petroleum products	9,265	9,633
Stone, clay & glass products	17,971	20,188
Coke	7,927	9,089
Metals & products	26,553	28,272
Motor vehicles & equipment	16,208	24,344
Waste & scrap materials	15,494	17,300
Forwarder & shipper assn. traffic	10,527	11,573
All other carloads	60,933	68,066
LCL traffic	421	441
Total cars loaded	**492,493**	**543,038**
Cumulative total, 51 weeks	1973	1972
	26,965,243	25,710,399
Estimated revenue ton-miles (billions) 51 weeks	835.5	766.4

PIGGYBACK LOADINGS

U.S. piggyback loadings for the week ended Dec. 15 totaled 32,804 cars (21.1% above the corresponding week of 1972) and 56,594 trailers or containers (up 22.7% from 1972). Cumulative volume for the first 50 weeks of 1973 is 1,489,938 cars (up 16.2% from 1972) and 2,579,071 trailers or containers (up 18.8% from 1972).

IN CANADA

7 days ending	Tons of Revenue Freight	Cumulative Totals
Dec. 7, 1973	5,272,459	226,134,601
Dec. 7, 1972	4,400,123	199,142,117

● *Canadian National.*—Placed a $2-million order with Hawker Siddeley for 94 100-ton gondolas which will form a third unit coal train to operate over the 700 miles between Luscar, Alta., and Vancouver, B.C.

● *CP Rail.*—Ordered 140 52-ft, 8-in., 70-ton double-door box cars valued at $3.7 million from National Steel Car. Designed for plywood haulage between British Columbia and central and western Canada, the cars will have 18-ft-wide door openings, the largest ever used on CP Rail's conventional box cars.

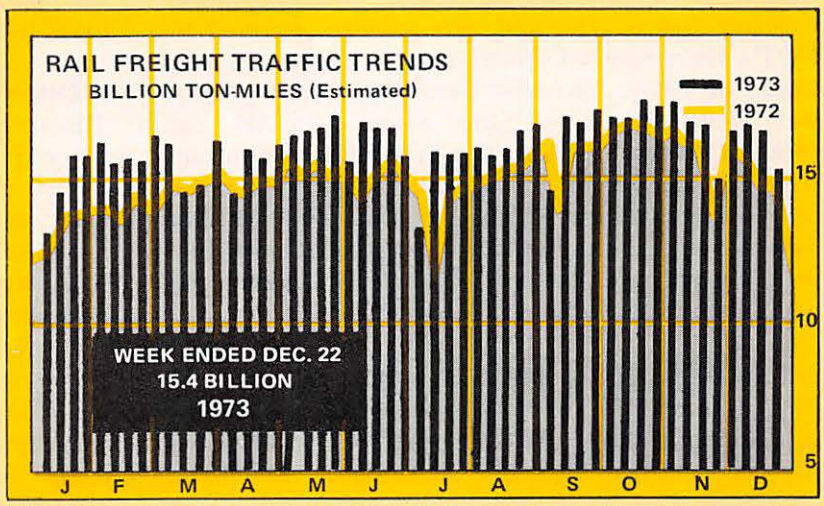
● *Norfolk & Western.*—NW's 1974 capital budget of $101 million calls for purchase of 20 diesel-electric locomotives, acquisition of 1,748 new freight cars, and rebuilding of 1,500 box cars. Among the new cars will be 480 covered hoppers and 500 gondolas to be built in NW's Roanoke shops. NW will replace 200 miles of rail in 1974, insert nearly 1 million ties, and clean and ballast more than 2,200 miles of track.

● *Trailer Train.*—Ordered 951 new 89-ft, 4-in. flat cars as follows: from Bethlehem Steel, 300 standard level cars; from Pullman-Standard, 551 standard-level and 100 low-level cars.

● *Freight-car orders and deliveries.*—The following report has been received from the ARCI and AAR:

DELIVERED	Nov. '73	Oct. '73	Nov. '72
Built new by carbuilders	5,606	6,016	3,557
Built new in R.R. shops	323	357	412
Built new—total	5,929	6,373	3,969
Rebuilt	97	107	218
TOTAL DELIVERED	**6,026**	**6,480**	**4,187**
ORDERED			
To be built new by carbuilders	9,436	13,410	5,003
To be built new in R.R. shops	300	125	400
To be built new—total	9,736	13,535	5,403
To be rebuilt	53	747	600
TOTAL ORDERED	**9,789**	**14,282**	**6,003**

ON ORDER AND UNDELIVERED	Dec. 1, '73	Nov. 1, '73	Dec. 1, '72
To be built new by carbuilders	58,606	55,078	17,314
To be built new in R.R. shops	2,193	2,235	3,800
To be built new—total	60,799	57,313	21,144
To be rebuilt	772	816	1,875
TOTAL ON ORDER	**61,571**	**58,129**	**22,989**



Source: Association of American Railroads

Moving People

SKYBUS STILL UP IN THE AIR

UMTA Administrator Frank Herringer went to Pittsburgh recently to make a speech—and he seized the occasion to look into the status of the controversial Skybus transit plan, for which UMTA long ago pledged $69 million but over which local interests are still bickering. Said Herringer: "We have found there is truly a deep division among the people here." He said UMTA would leave any final decision up to the city and county, but suggested that if agreement isn't reached soon the money may go to areas "which have faced their problems squarely and come up with a plan."

500 CTA CARS GET CAB SIGNALS

Chicago Transit Authority is under way with installation of cab signals on 500 rapid-transit cars, serving CTA's North-South, Ravenswood, Skokie Swift and Evanston routes—the only lines not yet provided with signal protection with train-stop devices through their entire length. Installation of the GRS equipment will take about a year and a half, and will be a part of a $21-million project designed to equip CTA's entire rapid-transit system with modern signaling devices.

GARRETT WINS ACT-1 CONTRACT

Boeing Vertol has awarded an $8-million contract to Garrett AiResearch to build a two-car experimental prototype Advanced Concept Train (ACT-1). Boeing Vertol is systems manager for the project, which is sponsored by the Urban Mass Transportation Administration. Designed for rail rapid transit, the ACT-1 train will be powered by an energy storage flywheel propulsion system designed to conserve and better utilize electric power. The ACT-1 contract resulted from a design competition among four industry teams. The new cars will be delivered to DOT's High Speed Ground Test Center at Pueblo, Colo., in 1975. An earlier part of the same project was development of the State-of-the-Art car (SOAC), which St. Louis Car built under a contract from Boeing Vertol. SOAC, which will soon come east to begin testing on lines of the New York City Transit system, represents the best available off-the-shelf technology. ACT-1 will represent advanced technology.

CHICAGO-PROJECT SILENCE BROKEN

Things have been awfully quiet lately, with respect to Chicago's plans for building new downtown subway systems. But the silence has now been broken, sort of, with award of a $250,000 contract to Bechtel Incorporated to evaluate the engineering, economic and environmental impact of the proposed project. Chicago Urban Transportation District plans have been based on a 1968 study which was updated and refined in '71, and which recommended replacement of the Loop elevated with a subway and construction of a distributor subway. Bechtel engineers have now been asked to look at aerial configurations and other major design possibilities, among other things. Two reasons for the new study: Evolving rapid-transit technology and environmental-impact considerations.

ICC IMPOSES INTERCITY STANDARDS

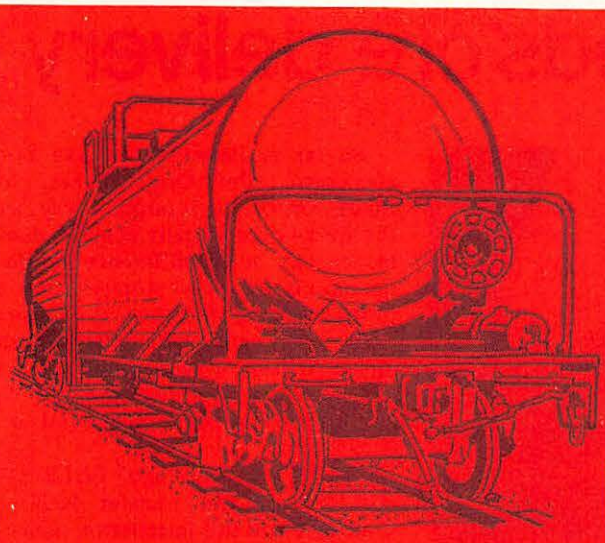
Standards of adequacy for intercity passenger service and regulations governing reservations, stations, baggage handling, equipment, food and sleeping-car service, personnel on trains and train performance are to be imposed on all such operations in early February. Involved will be Amtrak, Amtrak contract railroads and those lines operating intercity trains which are not part of Amtrak—Southern, Denver & Rio Grande Western, Rock Island, and Georgia. The new requirements, somewhat like those imposed on airlines, were established under authority of the Rail Passenger Service Act of 1970 and do involve compensation to passengers for certain violations. Intercity operators can petition for exemption of certain trains from requirements of the ICC order.

NEW CARS FOR BOSTON SUBURBS

Seventy coaches previously used in New York area suburban service are now being placed on Penn Central lines out of Boston. The stainless-steel cars, identified "as a major improvement over previous equipment" by General Manager Joseph C. Kelly of the Massachusetts Bay Transportation Authority, have been rehabilitated for commuter operation.

RICHMOND-WASHINGTON CORRIDOR RECOMMENDED

The Commonwealth of Virginia has a consultants' report recommending establishment of 80-mph train service between Richmond and Washington, D.C., over tracks of the Richmond, Fredericksburg & Potomac. The study, sponsored by Virginia and FRA, would have Amtrak operate five trains daily in each direction following upgrading of RF&P tracks, the building of parking facilities and elimination of grade crossings. Expenditures of $1.7 million should make this possible by 1977, reported Thomas K. Dyer, Inc., and Peat, Marwick, Mitchell & Co. The study also foresees the potential for electrified operation at speeds to 120 mph by 1990.



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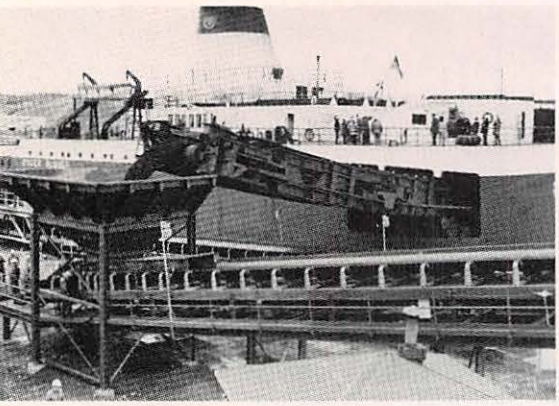
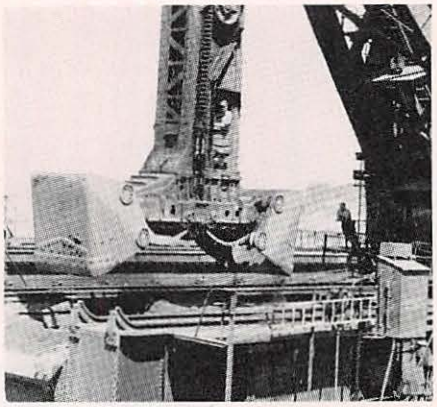
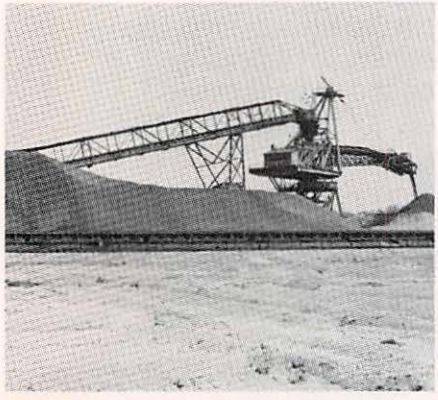
B&LE facility speeds ore delivery



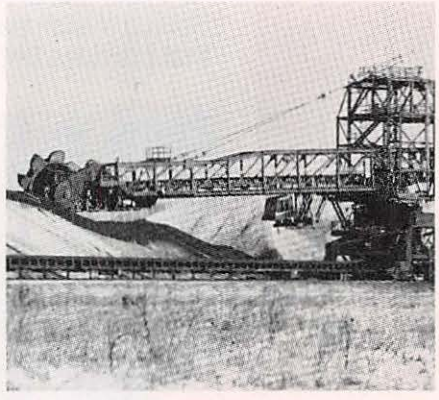
CONNEAUT'S SYSTEM will handle storage of cargo from self-unloaders like M/V Roger Blough at a rate of 10,000 tons per hour.



MORE CONVENTIONAL bulk-cargo vessels will unload by Hulett unloaders, each of which has a single-bite capacity of 17 tons.



TRAVELING STACKER transfers pellets to ground storage at hourly rate of 10,000 tons. Material can be stocked at either side of belt.



TRAVELING BUCKET-WHEEL reclaiming unit has capacity of 5,000 tons per hour in moving ore via belt to railcar loadout.

AT ORE/LIMESTONE loadout station, cars are moved by radio-controlled locomotives; loadout is controlled by mini-computer. The station can load 400 100-ton cars in 12 hours.

So far as Bessemer & Lake Erie is concerned, the Great Lakes don't freeze. Or, to put it another way, when the freeze does actually come, it doesn't make that much difference to B&LE operations—because storage and materials-handling facilities at Conneaut, Ohio, have made bulk-commodity shipments virtually a year-around thing, ore and limestone southbound to the Pittsburgh area and coal northbound to the Great Lakes.

Almost 10 years ago, B&LE put a coal storage and transfer facility at Conneaut and this installation—since expanded three times—has made coal less of a seasonal commodity. Now, the Pittsburgh & Conneaut Dock Co., also a part of the U.S. Steel family, has an ore and stone facility working so well that a preliminary engineering contract has been awarded for a significant expansion.

Before, most ore received at Conneaut was transloaded directly into railcars. Scheduling requirements were wicked, involving lake vessels, the dock company and the railroad. If something like bad weather, for instance, delayed a ship, railcars stood idle. An average four-month closing of the annual lake shipping season meant, in effect, that the railroad has to have enough cars to handle 12 months' ore requirements in eight months.

Now, ore and limestone can be moved efficiently from ship to storage to railcars. Conneaut's facility can accommodate both bulk cargo carriers (via Hulett unloaders) and self-unloaders. Transfer from storage to railcars is done through use of two bucket-wheel reclaimers which feed to a belt system for movement to a carloading station which is computerized and has a weighing accuracy within one-tenth of 1%.

M. Spalding Toon, president of both the dock company and B&LE, cites the advantages of the new system:

—It divorces ship unloading from railcar loading, thus reducing ship delays.

—It cuts down on rail congestion and improves car utilization.

—It permits scheduled movement of customers' ore and limestone requirements on a daily basis and makes it possible for steel mills to avoid the duplicate handling involved in in-plant storage.

—It reduces customers' demurrage charges.

—It permits release of storage areas at the mills for use in plant expansion.

Concept studies and specs for the system were prepared by Soros Associates, with FMC's Link Belt Division handling design and construction. ■

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BUY BONDS

Viewpoint

The embargo that failed: A fable

The premise: An overseas reporter who has been out of touch with events in the U.S. goes to Cairo on July 4, 1976, to write a story on the new Amtrak coaches being constructed at the nearby shops of the Alexandria & Heliopolis Oasis Railway. While there, he is granted an exclusive interview with President Anwar Sadat. Railway Age Publisher Robert G. Lewis imagines that this is how the exchange would go.

Q. President Sadat, now that the oil embargo has been in effect nearly 30 months, would you like to remark on its success from the viewpoint of the Arab countries?

A. It has not been an unqualified success. It was badly timed.

Q. How could that be? Didn't you expect the boycott to bring the U.S. to its knees?

A. We did, but instead, it put the U.S. on its toes. In some areas it actually bolstered the economy. You know yourself that Appalachia had been considered a "distressed" area. Well, our boycott created jobs in that area and wiped out payment of unemployment benefits, relief, and expensive social projects. If it hadn't been for the sagacity of U.S. politicians, it could have led toward a balanced budget.

Q. But that was just in the coal regions. Didn't it have a severe effect on most of the U.S. population?

A. Actually, we find that we Arabs are saving more than 10,000 American lives each year on U.S. highways, which was not exactly a goal of our petroleum embargo. What is more, reduced highway use and lower speeds are sending 50,000 fewer Americans to the hospital with injuries. We are also informed that some U.S. citizens have started to walk again—some who have never used their legs before except to get to and from their cars. Circulatory ailments are heading toward a new low. In one state we are told that the local Blue Cross even considered lowering its charges (though they did not). And in New England there were three shoe factories that reopened, the first in 30 years.

Q. What course do you think the Arab nations should have taken?

A. It is clear now that we should have *increased* the U.S. petroleum allowances, with a simultaneous *reduction* in the price per barrel.

Q. Mercy! Wouldn't that have defeated your goals?

A. On the contrary. We now figure we could have stimulated petroleum use to the extent that highway construction would have had to double or even treble. The pollution problem would have worsened. There would be so much usable land paved over that the U.S. would have to *import* cotton from us, and wheat from the Ukraine. The U.S. balance of payments would have reversed and U.S. dependence on others would have skyrocketed.

Q. But wouldn't your largesse with low cost petroleum. . .

A. Let me interrupt to explain. Unlimited supplies of low cost crude would create widespread unemployment in Texas and Oklahoma oilfields, we now figure. The Alaska pipeline would have been stopped in its tracks—and speaking of tracks, you should know better than I that our action saved U.S. railways. What you refer to as our largesse would have made for cheaper truck transportation of freight, lower air fares, a requirement for more and even larger airports, and so on. Public transportation would be dependent on public facilities and would ultimately cost the taxpayer a great deal more. And the only mass transportation the U.S. would have would be people driving their own cars to church service.

Instead of all this, our actions have made possible such actions as the formation of the new Consolidated Rail Corporation out of the bankrupt railroad systems. We have reports that CRC made an operating profit during its first 30 days, and that the millions of dollars the U.S. Congress provided for employees displaced are in fact being spent to hire and train new employees to handle all the traffic.

Q. So the oil embargo wasn't necessarily a good thing from your standpoint?

A. You miss the point. It isn't that the embargo couldn't work—remember I said at the outset of this interview that it was a matter of poor timing. I figure if we had waited until 1980, an embargo then would have put me or my successor in the White House.

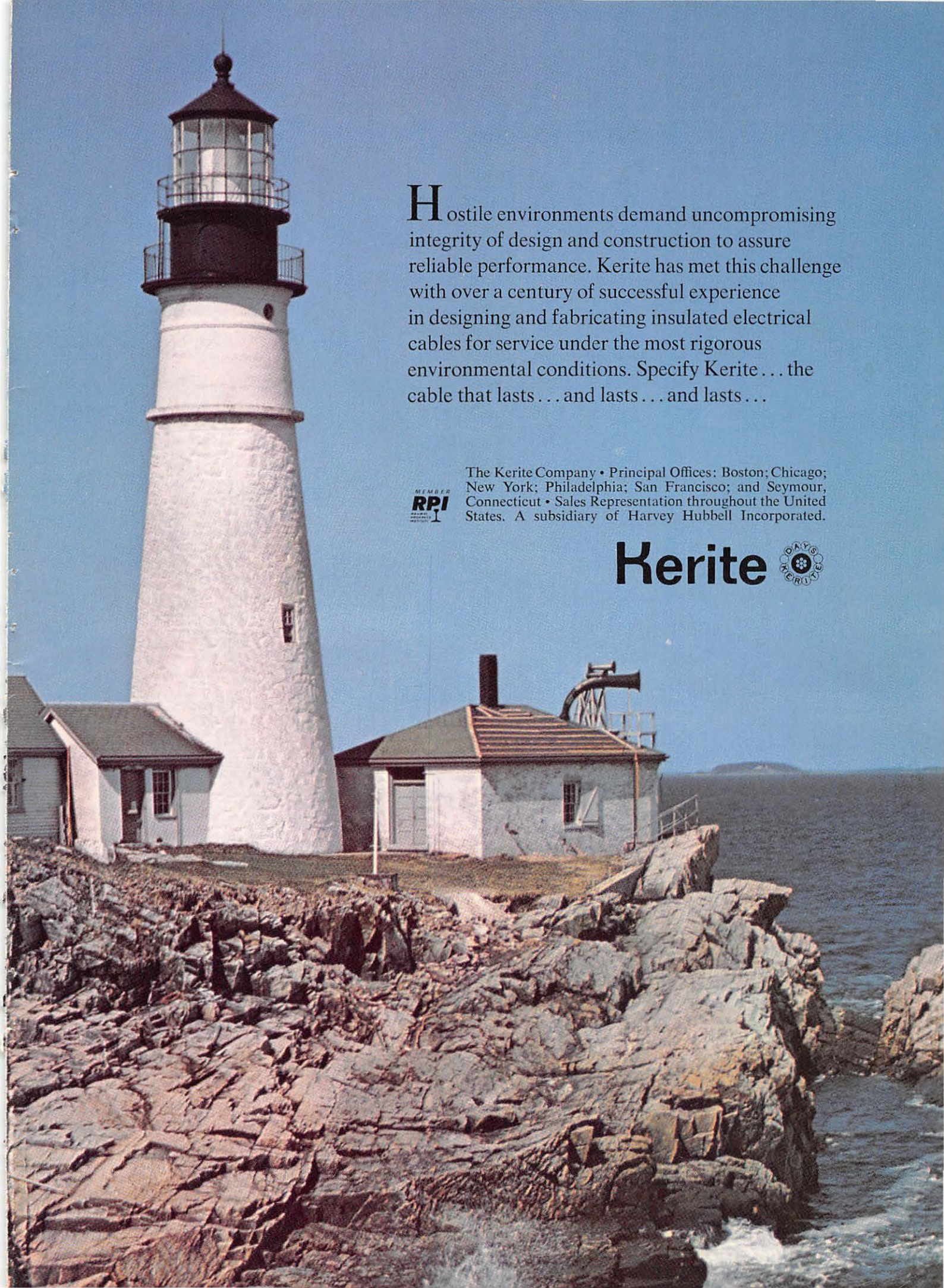
Q. Really? And what changes would you make there?

A. First, I would get Jerry Ford's coal furnace out of there and put back the oil burner.

Q. One final question, President Sadat, how do you evaluate the on-going Geneva peace conferences?

A. I think the round table problem may soon be squared. Meantime, I am writing my own version of Tolstoy's great book. Mine will be entitled "Peace Anwar."

Q. Thank you very much, President Sadat.



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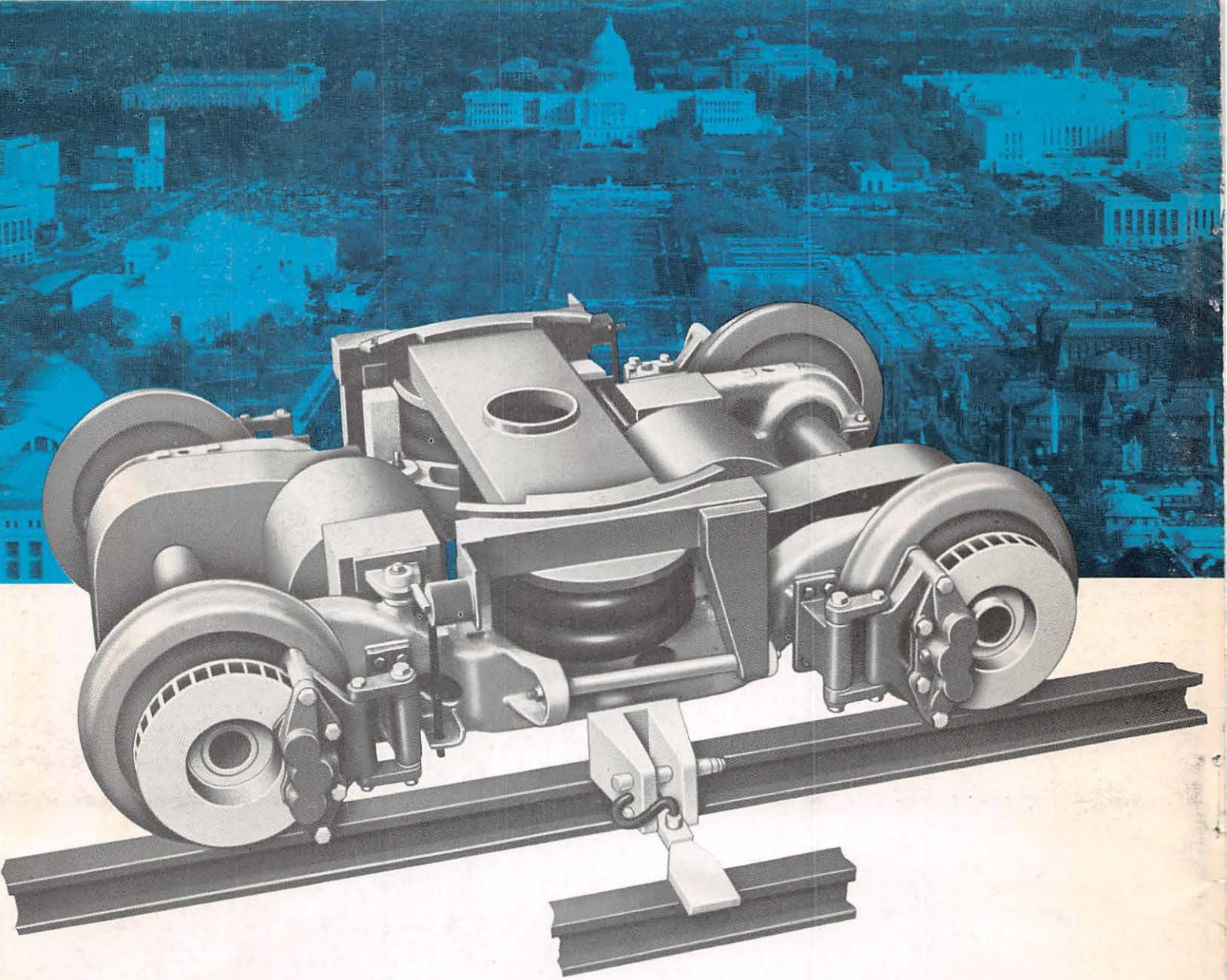

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